Ansh Labs®

The Difference is in the Results. Go Ahead. Test Us!

Product Catalog

Immunoassays, Proteins, Antibodies, and Custom Manufacturing Services

Biomedical Research Tools for

- Reproductive Function
- Glucagon Regulation
- Growth Factors
- Pregnancy
- Neuronal Disorders
- Cardiovascular Disease
- Oncology
- Animal Specific Assays
- Research Reagents
  - Monoclonal Antibodies
  - Recombinant Proteins

Now Available:

- C-Peptide of Insulin
- GLP-1
- GLP-2
- Glucagon
- Oxyntomodulin
- Major Proglucagon Fragment

Coming Soon:

- BMP-15
- BMP-15 / GDF-9 Heterodimer Complex
- GDF-9
- PAPP-A / Stanniocalcin 2 Complex

ISO 13485:2003

Introduction

At Ansh Labs, we understand the importance of your research and we pride ourselves on developing and manufacturing immunoassays and sharing our knowledge. We're not just another manufacturer but a dedicated team working to turn hope for a healthier future into a reality. Our passion is helping you reach your goals.

From our beginnings, Ansh Labs has remained committed to identifying and developing emerging biomarkers.

Quality Policy

Ansh Labs is a manufacturer and distributor of *in vitro* diagnostic products for the healthcare industry. Ansh Labs is dedicated to exceeding our customers' expectations in terms of quality of the products and services we provide.

Ansh Labs follows guidelines of the U.S. FDA Good Manufacturing Practice (cGMP) 21 CFR 820, CMDR - Quality System, IVD Directive 98/79/EC as well as ISO 13485 International Standards. With this quality system, we have dedicated ourselves to a strategy of continuous improvement, constantly seeking to understand the expectation of our customers and striving to exceed those expectations at every juncture.

It is the responsibility of Ansh Labs' Senior Management to ensure through proper training that the Quality Policy is understood, implemented, and maintained at all levels within the organization.

All Ansh Labs employees adhere to the spirit and letter of the company's Quality Policy, as well as the directives of the Quality Manual and its subordinate documents.

Gopal Savjani
President and CEO

Table of Contents

Product Focus Anti-Müllerian Hormone*

Ansh Labs Advantage

Specific to human AMH (associated form)
detects the full length and enhanced biologically active associated forms of human AMH

Standardized recombinant human AMH calibrators
ensure accuracy and reproducibility assay–to–assay and lot–to–lot

Unique mAbs developed against specific linear epitopes on the associated dimers of AMH
specificity and consistency of AMH detection

Analytical measurable range of 0.08—14.2 ng/mL
wide dynamic range reduces repeat testing of samples

Sensitive to ~23 pg/mL
improved detection rate in research studies of compromised gonadal function

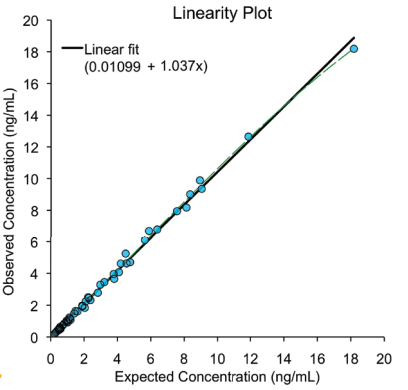
AMH concentration in a sample does not appear to be impacted significantly by normal storage and transportation conditions if proper sample collection practices are adhered.

AMH is a useful research tool in Reproductive Endocrinology studies related to:

- Primary ovarian insufficiency
- Oncofertility
- Gonadotoxicity
- Menopause
- Premature ovarian aging
- PCOS – biochemical feature of polycystic ovary syndrome
- Neonatal gender determination
- Cryptorchidism
- Testicular (Leydig/Sertoli cell) function

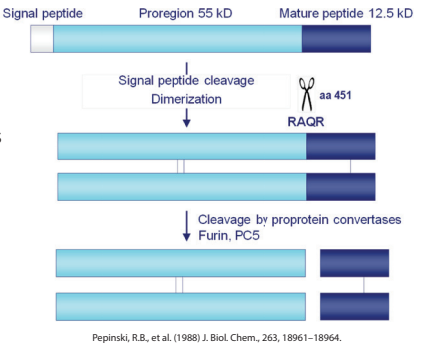
Accurate

Standardized recombinant human AMH calibrators



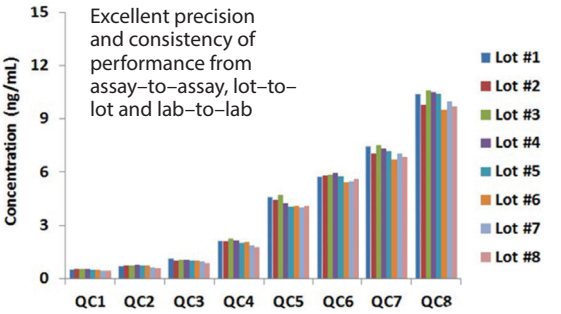
Specific

Specific to the full length and cleaved complex forms of AMH



Pepinski, R.B., et al. (1988) J. Biol. Chem., 263, 18961–18964.

Reliable



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Product Focus - picoAMH (Anti–Müllerian Hormone)*

Ansh Labs Advantage

Analytical measurable range of 3.8 - 1,091 pg/mL
analytical sensitivity to ~2 pg/mL to distinguish declining AMH levels; the only assay available to measure AMH in this range

Specific to human AMH
detects the full length and enhanced biologically active associated forms of human AMH

Standardized recombinant human AMH calibrators
ensure accuracy and reproducibility assay–to–assay and lot–to–lot

Unique mAbs developed against specific linear epitopes on the associated dimers of AMH
specificity and consistency of AMH detection, no detectable cross-reactivity to other isoforms of AMH, different conformations of AMH, or other TGF-ß superfamily hormones; no interference by complement or heterophilic antibodies

Sample size is not the limitation of the assay
optimized for dilution in the well; assay can be performed with as little as 10 µL sample size for higher concentrations of AMH, or up to 50 µL of sample when sensitivity down to ~2 pg/mL is required

picoAMH is a useful research tool in Reproductive Endocrinology studies related to:

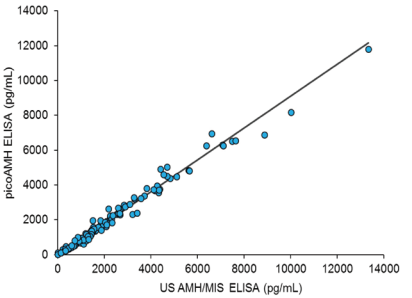
- Primary ovarian insufficiency
- Oncofertility
- Gonadotoxicity
- Menopause
- Premature ovarian aging

Accurate

Serum samples were pre-diluted 1:10 or 1:20 prior to assay in picoAMH ELISA (AL-124). Matched serum samples were run undiluted in Ultra-Sensitive AMH ELISA (AL-105).

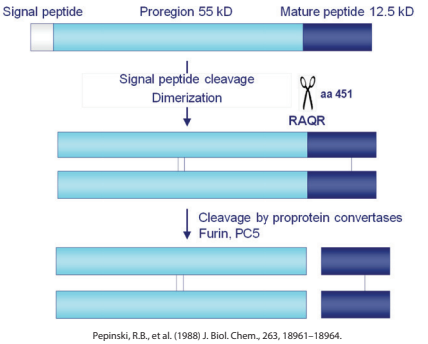
Passing-Bablok regression:

picoAMH ELISA = 0.92 US AMH ELISA – 50.66 (r2=0.99, P<0.0001)



Specific

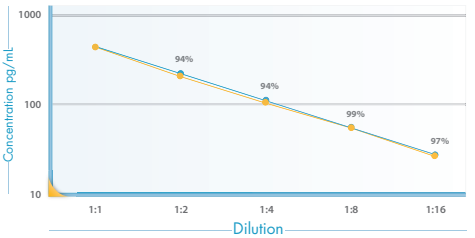
Specific to the full length and cleaved complex forms of AMH



Pepinski, R.B., et al. (1988) J. Biol. Chem., 263, 18961–18964.

Reliable

In accordance with NCCLS EP-6-P standards, serum samples were diluted and analyzed. Linearity of results was seen regardless of dilution—from Neat to 1:320.



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Product Focus - Animal Specific AMH Assays

Ansh Labs Advantage:

The animal AMH kits utilize monoclonal antibodies carefully selected for high affinity and specificity for certain species. Where available, species–specific AMH calibrators have been employed. The assays have been optimized to not cross react with other related members of the TGF–β superfamily. The enhanced specificity and analytical sensitivity allow for greater detection of AMH at low concentrations.

Applications:

- Estimate fertility potential – embryo transfer, donor recipient
- Detect cryptorchidism
- Detect granulosa cell tumors
- Check spay and neuter procedures for remnant tissue

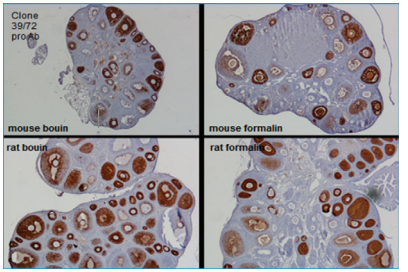
Species Specific AMH Assays:

- Bovine AMH, AL-115
- Canine AMH, AL-116
- Caprine AMH, AL-154
- Equine AMH, AL-115
- Ovine AMH, AL-155
- Porcine AMH, AL-169
- Primate AMH, AL-105
- Rat / Mouse AMH, AL-113

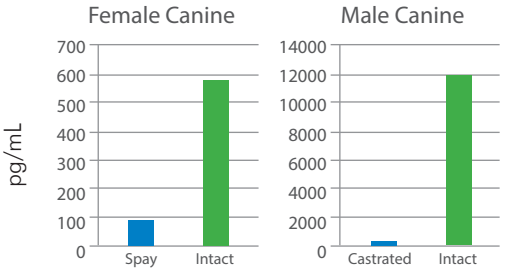
Bovine Breeds Tested

- Bos taurus: Jersey, Hereford, Holstein, Angus, Red Angus, Black Angus
- Bubalus bubalis: Murrah
- Bos indicus: Brahman, Gyr, Nelore
- Mixed: Beefmaster, Brangus, Holstein-Jersey, Braford, Bonsmara, Wagyu

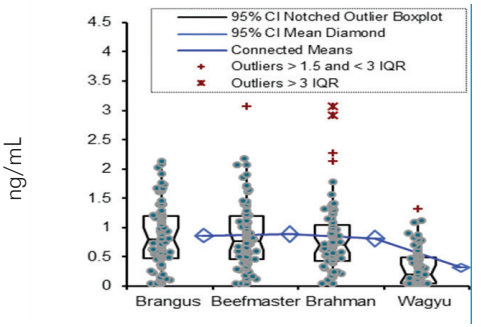
Rat and Mouse



Canine



Bovine



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Product Focus - Inhibin B*

Ansh Labs Advantage

Analytical measurable range of 12.7-1390 pg/mL
wide dynamic range and sensitivity to 1.6 pg/mL

Native human Inhibin B calibrators
optimized and stable after reconstitution up to 14 days at 2-8˚C, one year at –20˚C or colder and for up to three freeze-thaw cycles

In-the-well sample extraction using proprietary detergent and oxidant solution
essential to destroy catalases and proteases and to remove binding proteins that may cause false positive results

Long shelf-life
minimizing lot changes ensures long-term consistency and precision of results

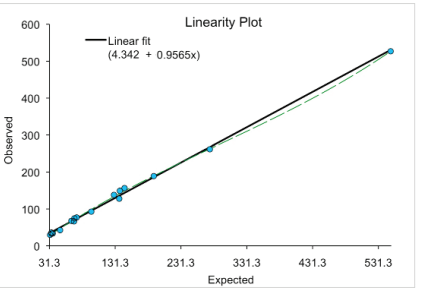
Automation ready
simple procedure is automatable on most robotic platforms

Inhibin B is a useful research tool in Reproductive Endocrinology studies related to:

- Ovarian function assessment
- Spermatogenesis and testicular function
- Oocyte quality

Accurate

Native human Inhibin B calibrators



Specific

Cross-reactant	Concentration	% Cross-reactivity
Inhibin A	100 ng/mL	ND
Activin A	50 ng/mL	ND
Activin B	50 ng/mL	0.04%
Activin AB	50 ng/mL	ND
AMH	50 ng/mL	ND

To ensure accurate quantitation of Inhibin B, we employ an in-the-well sample extraction step using a proprietary detergent and oxidant solution. This step is essential to destroy catalases and proteases present in samples, and to remove binding proteins and potential false positive result causing agents as reported by Evans and Groome (2001, Imperial College Press London, p. 11.)

Reliable

Total imprecision of <7.5% at concentrations greater than 50 pg/mL

Sample	ELISA			CLIA		
	Mean Conc.	Total		Mean Conc.	Total	
	(pg/mL)	SD	%CV	(pg/mL)	SD	%CV
Pool 1	50.305	3.765	7.48	123.478	6.790	5.50
Pool 2	109.497	5.996	5.48	211.724	7.251	3.42
Pool 3	397.181	23.752	5.95	437.987	13.417	3.06

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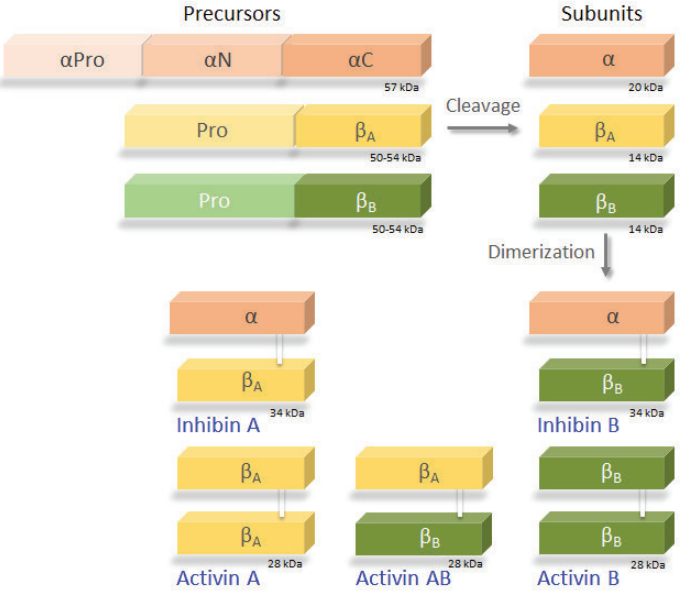
Overview - Activins and Inhibins*

Inhibins and activins are protein complexes belonging to TGF-β superfamily of growth factors. While activin enhances follicle-stimulating hormone (FSH) synthesis, inhibin suppresses it. Besides FSH regulation, numerous functions in cell proliferation, differentiation, apoptosis, bone metabolism and hematopoiesis have been attributed to inhibins and activins.

Inhibin and activin complexes are assembled by dimerization of alpha (α) and beta A (βA) or beta B (βB) subunits in different combinations. The α-subunit, unique to inhibins, combines with βA or βB subunits to form inhibin A and inhibin B respectively. Activins are homodimers of βA (Activin A), βB (Activin B) or a βA:βB heterodimer (Activin AB). Circulating inhibins and activins are predominantly found in complex with beta subunit-binding FST and FSTL3.

Ansh Labs has developed an array of ELISAs using well-characterized capture and detection antibodies specific to α, βA and βB subunits. Accurate measurement of different inhibin and activin proteins, a tricky task due to sharing of subunits, is vital to determination of their regulation and function in normal physiology and various disease states.



Sample Types Tested:

- Serum
- Plasma
- Follicular fluid
- Saliva
- Urine

Research Applications:

- Pregnancy
- Menopause
- Granulosa Cell Tumors
- Ovarian Cancer
- Reproductive Disorders

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Specific

	Inhibin A	Inhibin B	Activin A	Activin B	Activin AB	FST 315	FSTL-3
Inhibin A AL-123	100%	ND	ND	ND	ND	ND	ND
Inhibin B AL-107	ND	100%	ND	0.04%	ND	ND	ND
Activin A AL-110	ND	ND	100%	ND	2.28%	ND	ND
Activin B AL-150	ND	ND at 2 ng/mL	ND	100%	8.9% at 2 ng/mL	ND	ND
Activin AB AL-153	ND	ND	ND	ND	100%	ND	ND
FST AL-117	ND	ND	ND	ND	ND	100%	ND
FSTL-3 AL-152	ND	ND	ND	ND	ND	ND	100%

Sensitive and Reliable

	Antibody Binding Region	Dynamic Range (pg/mL)	Analytical Sensitivity (pg/mL)	Imprecisions % CV (Conc.)
Inhibin A AL-123	βA-(Capture) & α-(Detection)	9.9 - 1188	5.4	6.2% (101.3 pg/mL) 5.5% (344.8 pg/mL)
Inhibin B AL-107	βB-(Capture) & α-(Detection)	12.7 - 1390	1.6	7.4% (68.9 pg/mL) 5.6% (99.4 pg/mL)
Total Inhibin AL-134	αC-(Capture) & αN-(Detection)	8.3 - 525	1.5	4.5% (20.5 pg/mL) 3.9% (69.8 pg/mL)
Activin A AL-110	βA-Subunit Mature	100 - 10,000	65.0	5.7% (673 pg/mL) 4.3% (2527 pg/mL)
Activin B AL-150	βB-Subunit Mature	12.7 - 1400	4.35	4.7% (51.8 pg/mL) 3.1% (225.5 pg/mL)
Activin AB AL-153	βB-(Capture) & βA-(Detection)	10 - 1000	1.1	9.2% (87.4 pg/mL) 6.2% (265.2 pg/mL)
FST AL-117	Fs3-(Capture) & Fs1-(Detection)	625 - 20,000	190	6.33% (1122 pg/mL) 3.9% (2693 pg/mL)
FSTL-3 AL-152	Fs2	360 - 12,000	164.0	3.0% (1353 pg/mL) 3.2% (3688 pg/mL)

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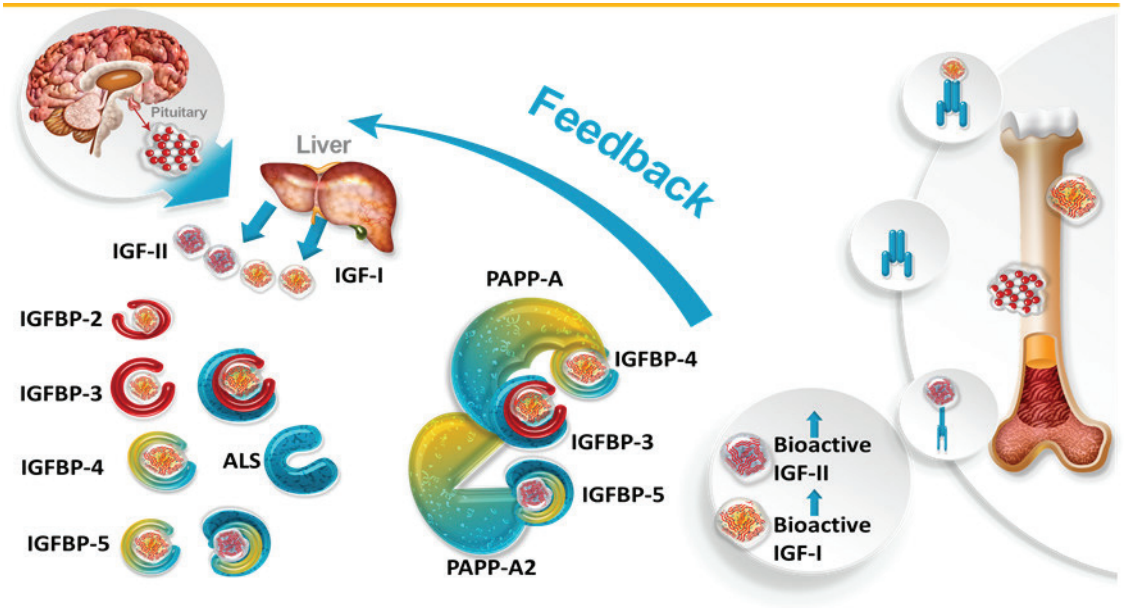
Overview - Growth Factors*



The insulin-like growth factor (IGF) axis consists of IGF-I and IGF-II proteins, their receptors (IGF-IR and IGF-IIR), a family of seven IGF binding proteins (IGFBP-1 to IGFBP-7) and IGFBP-degrading proteases. IGFs in circulation are bound by IGFBPs, which regulate their half-life and bioavailability. Proteases like pregnancy-associated plasma protein A (PAPP-A) degrade IGFBPs to release IGFs. In the unbound (bioactive) state, IGFs interact with their receptors to regulate cell growth and differentiation pathways.

Ansh Labs has developed a wide array of highly sensitive and specific ELISAs. Our assays enable accurate measurement and differentiation of bioactive IGFs from total levels or intact IGFBPs from total levels (intact plus fragmented). Such assessments will advance our understanding of IGF function and enable biomarker discovery in different disease states.

Sample Types Tested:

- Serum
- Plasma
- Follicular fluid
- Saliva
- Urine
- Serum

Research Applications:

- Pregnancy
- Growth Hormone Deficiency
- Oncology
- Hypertension
- Diabetes

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Specific

	IGF-I 1µg/mL	IGF-II 1µg/mL	IGFBP-2 1µg/mL	IGFBP-3 1µg/mL	IGFBP-4 1µg/mL	IGFBP-5 1µg/mL	IGF-IGFBP-3 1µg/mL
Bioactive IGF-I AL-122	100%	ND	ND	ND	ND	ND	<0.42%
Total IGF-I AL-121	100%	ND	ND	ND	ND	ND	100
Total IGF-II AL-131	ND	100%	ND	ND	ND	ND	ND
IGFBP-2 AL-140	ND	ND	100 %	ND	ND	ND	ND
Intact IGFBP-3 AL-149	ND	ND	ND	100%	ND	ND	100%
Total IGFBP-3 AL-120	ND	ND	ND	100%	ND	ND	100%
Intact IGFBP-4 AL-128	ND	ND	ND	ND	100%	ND	ND
Total IGFBP-4 AL-126	ND	ND	ND	ND	100%	ND	ND
Total IGFBP-5 AL-127	ND	ND	ND	ND	ND	100%	ND

Sensitive and Reliable

	Antibody Binding Region	Dynamic Range (ng/mL)	Analytical Sensitivity (ng/mL)	Imprecisions % CV (Conc.)
Bioactive IGF-I AL-122	C-Terminal	0.48 - 32.2	0.025	6.3% (2.1 ng/mL) 6.0% (8.2 ng/mL)
Total IGF-I AL-121	C-Terminal (Acid & Neutralization)	0.48 - 32.2	0.025	6.3% (2.1 ng/mL) 5.9% (8.2 ng/mL)
Total IGF-II AL-131	N-(Capture) & C-(Detection)	20 - 1239	1.33	4.1% (107.1 ng/mL) 3.0% (261.9 ng/mL)
IGFBP-2 AL-140	Not Determined	0.45 - 16	0.08	3.4% (1.4 ng/mL) 5.8% (5.2 ng/mL)
Intact IGFBP-3 AL-149	C-(Capture) & N-(Detection)	3.5 - 117	1.37	6.0% (22.1 ng/mL) 4.2% (54.5 ng/mL)
Total IGFBP-3 AL-120	C-Terminal	7.5 - 216	0.3	4.2% (18.2 ng/mL) 4.2% (40.3 ng/mL)
Intact IGFBP-4 AL-128	N-(Capture) & C-(Detection)	1.5 - 96.16	0.67	2.7% (7.1 ng/mL) 4.6% (27.1 ng/mL)
Total IGFBP-4 AL-126	C-Terminal	50 - 702.2	4.7	3.8% (122.3 ng/mL) 3.9% (363.3 ng/mL)
Total IGFBP-5 AL-127	C-Terminal	15.3 - 902.3	4.4	5.1% (55.6 ng/mL) 5.2% (283.5 ng/mL)

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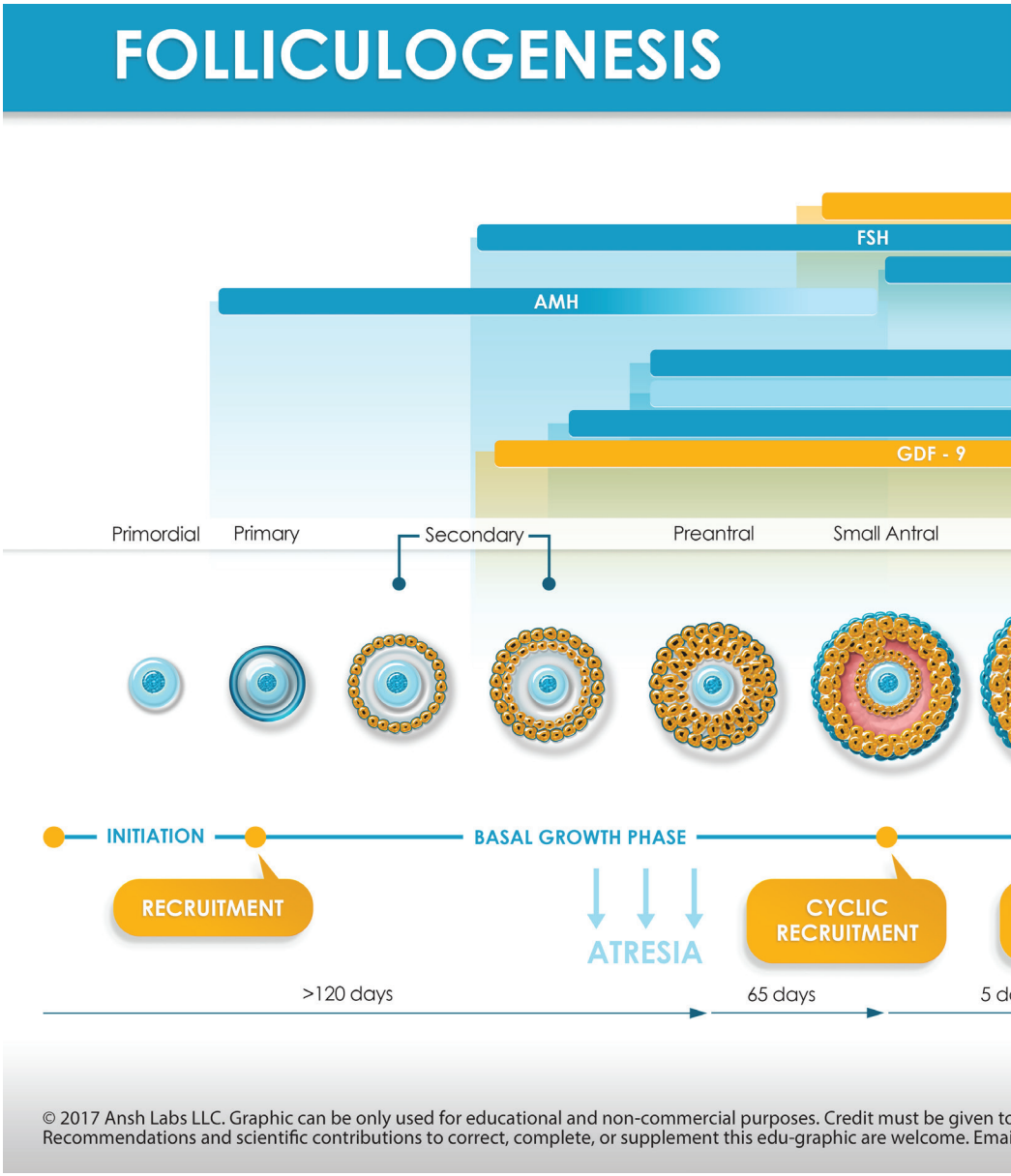
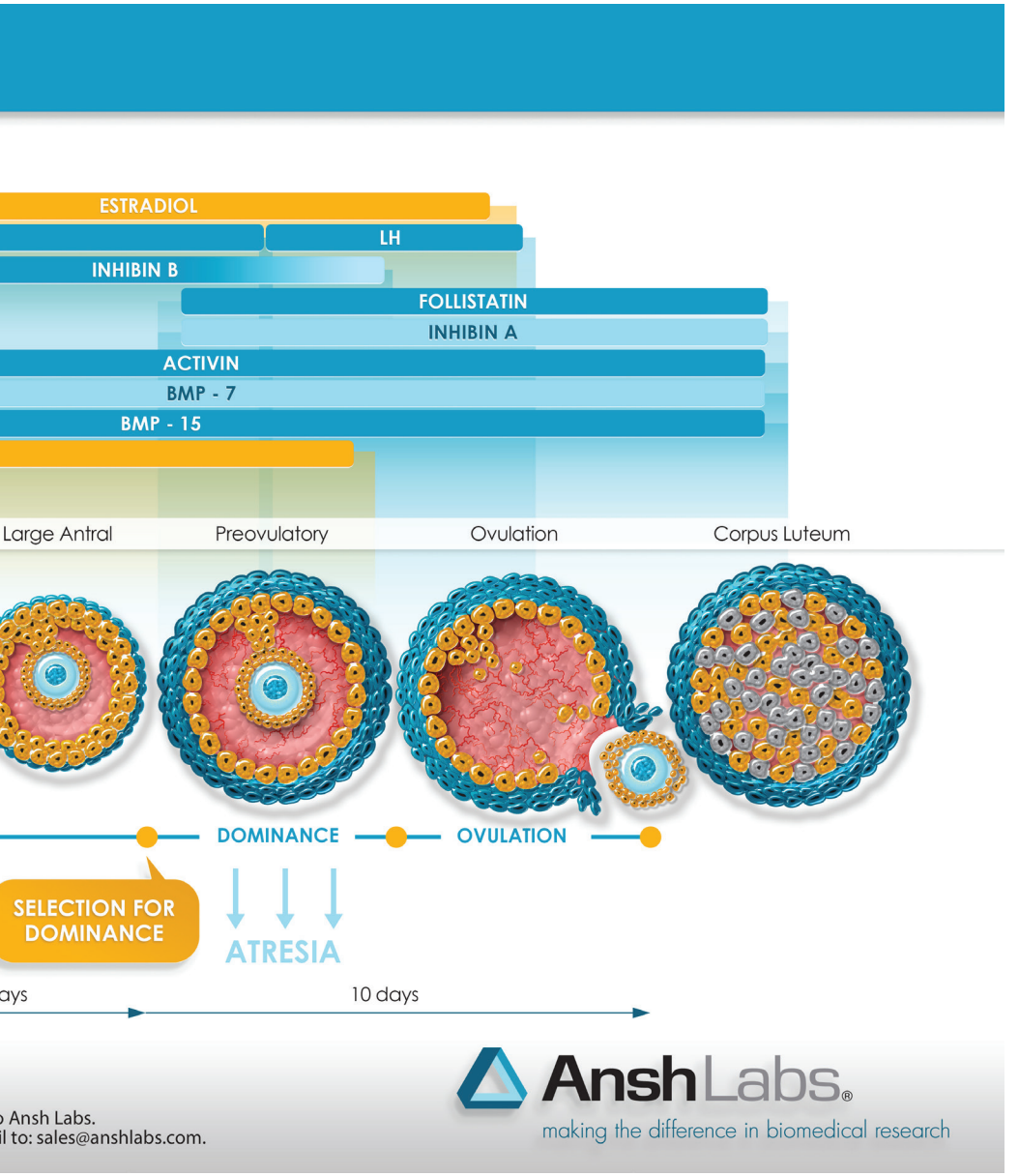
Educational Graphic

Ansh Labs' research and discovery team is exploring the interplay of the various hormones that are involved in follicle recruitment, maturation, and dominant follicle selection. We specialize in the development of antibodies and immunoassays for TGF-ß superfamily hormones, biomarkers of cardiometabolic diseases, insulin-like growth factors, etc.

Download high-resolution formats at: **http://www.anshlabs.com/folliculogenesis/**



The following educational graphic on folliculogensis was developed in collaboration with several key opinion leaders involved in human reproduction. We do plan to expand on this graphic so we welcome any recommendations you may have. Simply contact us on the Contact form and let us know your thoughts. The next iteration will include follicle size at each stage, estimated time frames for the follicle to progress, and estimated atresia amount at each stage. We can also provide the raw graphic files if you wish to translate or incorporate this into an educational piece.



Product Focus - Animal Reactivity Matrix

Researchers, endangered species experts and veterinary surgeons throughout the world utilize Ansh Labs' range of endocrine immunoassays for the analysis of animal samples. Plasma, Serum, Saliva, Fecal Extracts, Tissue Extracts and samples from cell culture media are examples of the varied types of samples that have been analyzed using Ansh Labs' assays in numerous applications and in a vast range of species. In addition to client publications and reports, Ansh Labs has also validated many of its immunoassays for various animal species as well as offering an array of species-specific assays.

The Quick Reference Matrix shown below is intended to give the reader a convenient overview of the immunoassays that have been tested for various animal applications. This information has been collated over many years from a number of different sources, and indicates the suitability of the Ansh Labs' assays for animal specimen analysis. For ease of reference in this matrix, the following qualifiers have been used to describe the evidence to establish the cross-reactivity findings:

V - Validated - Data available upon request confirming the suitability of the assay for a particular animal species.

P - Published - Use of assay for sample analysis for a particular species has been published in a scientific journal.

R - Reported - Reported by Client(s) as suitable for sample analysis for a particular species. Validation not confirmed by Ansh Labs.

NOTE - Blank cells do not indicate that the assay does not work, it only indicates that the studies have not been done. If you wish to collaborate, please email us.

Immunoassays	
Activin A	ELISA,
Activin B	ELISA,
Activin B, Mouse	ELISA,
AMH	ELISA,
AMH	CLIA,
AMH(pico)	ELISA,
AMH (Blood Spot)	ELISA,
AMH, Bovine	ELISA,
AMH, Canine	ELISA,
AMH, Caprine	ELISA,
AMH, Equine	ELISA,
AMH, Ovine	ELISA,
AMH, Porcine	ELISA,
AMH, Rat/Mouse	ELISA,
Glucagon	ELISA,
IGF-I (Total), Rat/Mouse	ELISA,
IGF-I (Free), Rat/Mouse	ELISA,
IGFBP-3 (Intact)	ELISA,
IGFBP-4 (Total)	ELISA,
IGFBP-4 (Intact)	ELISA,
IGFBP-5	ELISA,
Inhibin A	ELISA,
Inhibin A, Canine/Equine/Rodent	ELISA,
Inhibin B	ELISA,
Inhibin B, Canine/Equine/Rodent	ELISA,
Myelin Basic Protein	ELISA,
Oxyntomodulin	ELISA,
PAPP-A, Mouse	ELISA,

Validating Immunoassays in Various Species

Validation of an immunoassay for a particular animal specimen should be undertaken prior to analysis of experimental animal samples. It is vital that the validation procedure be completed with the same specimen type as that used or planned in the experiment.

The suitability of an immunoassay for a particular animal specimen will depend upon (1) the compatibility between the assay matrix and that of the specimen type; (2) the cross-reactivity or the analyte with the antibody components of the assay; (3) the sensitivity of the assay. In some cases, a kit may perform satisfactorily without modification, while others may require modest or extensive modification of validation

	Rattus	Murine	Primate	Porcine	Ovine	Caprine	Bovine	Equine	Canine	Feline	Other
AL-110		R									
AL-150		V			V	V	V	V	V		Fish, Rabbit
AL-156		V									
AL-105			V								Hamster, Rhesus, Cynomolgus, Vervet, Squirrel Monkey
AL-205			V								
AL-124			V								
AL-129			V								
AL-114							V, P, R				
AL-116									V, P	V	
AL-154						V	V				
AL-115								V			White Rhino, Bottlenose Dolphin
AL-155					V				V		
AL-169				V							
AL-113	V, P	V, P		V							
AL-157		V									
AL-137	V	V									
AL-136	V	V									
AL-149		V				V	V				Rabbit
AL-126	V					V	V	V			
AL-128	V					V	V	V			
AL-127							V	V	V		
AL-123		P									
AL-161	V	V						V	V		
AL-107		V, P					V	V	V		
AL-163	V	V						V	V		
AL-108			R								
AL-139		V	V		V	V	V	V	V		Rabit, Squirrel
AL-158		V			V	V	V	V	V		Rabbit

with an appropriate calibrator for optimal performance. Ansh Labs evaluates species cross reactivity by observing linear and parallel dilution. Investigators should use a neat (pure sample) and conduct serial dilutions using the "A" or zero Standard of the kit as the diluent. The results should be graphed with the dilution and standard curve appearing on the same set of axes.

For more details on how to validate an assay for various species, please see our website for the page under Resources titled, "Assay Validation for Animals" located at:

http://www.anshlabs.com/assay-validation-for-animals/

Reproductive Function

AMH, Ultra–Sensitive*

ELISA #AL-105, CLIA #AL-205

Anti–Müllerian Hormone is a 140 kDa glycoprotein that is produced during normal embryogenesis by the sertoli cells of the embryonic testis. It causes the involution of the müllerian duct and inhibits female gonadogenesis by inducing apoptosis of target gonadal cells. It belongs to the transforming growth factor– β super family. AMH causes apoptosis of specific müllerian inhibiting substance (MIS) receptor–bearing cells, while having no effect on cells without receptors.

	ELISA 96 Wells	CLIA 96 Wells
Method	Quantitative three–step sandwich immunoassay	
Incubation Time	Total 2.5 hour incubation at room temperature	
Approx Dynamic Range	6 points, 0.084 – 14.2 ng/mL	6 points, 0.09 – 20.2 ng/mL
Limit of Detection	23 pg/mL	29 pg/mL
Sample Size/Type	25 µL Serum, Plasma	50 µL Serum, Plasma
Shelf–life	24 months	24 months
Product Number	AL–105	AL–205

picoAMH*

ELISA #AL-124

The picoAMH kit is the only assay commercially available for those researchers seeking the sensitivity to distinguish declining AMH levels in studies of primary ovarian insufficiency, oncofertility, and peri–menopausal transition.

- Standardized recombinant human AMH calibrators for accuracy
- Specific to human AMH and does not cross react to other species
- Excellent intra- and inter–assay, and lot–to–lot precision for reliability

ELISA 96 Wells	
Method	Quantitative three–step sandwich immunoassay
Incubation Time	Total 4.5 hour incubation at room temperature
Approx Dynamic Range	7 points, 3.8 – 1091 pg/mL
Limit of Detection	2 pg/mL
Sample Size/Type	10 µL or 50 µL Serum, Plasma
Shelf–life	24 months
Product Number	AL–124

Ansh✓Check™ AMH Tri–Level Controls*

#AL-CTR-401

The Tri–Level Controls are intended for use as assay quality controls to monitor the precision and reproducibility of laboratory testing methods for the determination of AMH and can be run as unknowns against kit calibrators in any human AMH assay. The AMH controls are standardized to recombinant Human AMH (>99.9% by HPLC) that is characterized by mass spectrometry.

AMH
Approximate Values
Low – 0.3 ng/mL Medium – 1.3 ng/mL High – 3.3 ng/mL
Product Number AL–CTR–401

AMH, Dried Blood Spot*

ELISA #AL-129

The dried blood spot assay has been developed to measure AMH levels in two 7.9 mm dried blood spot discs. The sample is eluted from the dried blood spot in an extraction solution and is added directly to the well. The assay measures the bioessential AMH and does not exhibit interference by hematocrit in the extracted spot. Dried blood spot sampling offers many benefits over serum: ease of collection, stability of sample, and simple transportation conditions.

ELISA 96 Wells	
Method	Quantitative three–step sandwich assay
Incubation Time	Total 4.5 hour incubation at RT
Approx Dynamic Range	6 points, 0.11 – 13 ng/mL
Limit of Detection	0.0125 ng/mL (2 DBS samples)
Sample Size/Type	150 µL extracted DBS samples
Shelf–life	24 months
Product Number	AL–129

* Within the U.S., intended for Research Use Only (RUO). Not for use in diagnostic or therapeutic procedures.

AMH, Species-Specific Assays

ELISA 96 Wells	Method	Product Number	Incubation	Approx Range	Detection Limit	Sample Size	Shelf-Life
AMH, Bovine	ELISA	AL-114	3.5 hrs	13-2200 pg/mL	11 pg/mL	50 µL Serum, Plasma	24 mos
AMH, Canine	ELISA	AL-116	2.5 hrs	0.11-13.2 ng/mL	0.055 ng/mL	50 µL Serum, Plasma	24 mos
AMH, Caprine	ELISA	AL-154	TBD	TBD	TBD	50 µL Serum, Plasma	24 mos
AMH, Equine	ELISA	AL-115	3.5 hrs	0.06-14 ng/mL	0.009 ng/mL	50 µL Serum, Plasma	24 mos
AMH, Ovine	ELISA	AL-155	3.5 hrs	0.37-11.8 ng/mL	0.025 ng/mL	50 µL Serum, Plasma	24 mos
AMH, Porcine	ELISA	AL-169	3.5 hrs	0.2-13 ng/mL	0.055 ng/mL	50 µL Serum, Plasma	24 mos
AMH, Primate	ELISA	AL-105	2.5 hrs	0.084-14.2 ng/mL	23 pg/mL	50 µL Serum, Plasma	24 mos
AMH, Rat / Mouse	ELISA	AL-113	3.5 hrs	0.336-21.5 ng/mL	TBD	5 µL* Serum, Plasma	24 mos

* Pre-dilution

Activin A*

ELISA #AL-110, CLIA #AL-210

Activin A is a TGF–β family member that exhibits a wide range of biological activities including regulation of cellular proliferation and differentiation, and promotion of neuronal survival. The biological activities of activin A can be neutralized by inhibins and by the diffusible TGF– β antagonist, follistatin (FST). Human activin A is a 26 kDa disulfide–linked homodimer of two beta A chains, each containing 116 amino acid residues. Elevated levels of activin A have been implicated in colorectal and breast cancers in post–menopausal women. FST and FSTL3 are naturally binding proteins of activin A. Exogenous FST/FSTL3 do not interfere with activin A determinations using the Ansh Labs assays.

	ELISA 96 Wells	CLIA 96 Wells
Method	Quantitative three–step sandwich immunoassay	
Incubation Time	Total 3.5 hour incubation at room temperature	
Approx Dynamic Range	6 points, 100 – 10000 pg/mL	6 points, 0.1 – 10 ng/mL
Limit of Detection	65 pg/mL	62 pg/mL
Sample Size/Type	25 µL Serum, Plasma	25 µL Serum, Plasma
Shelf–life	24 months	24 months
Product Number	AL–110	AL–210

Activin B*

ELISA #AL-150

Activins, like all members of the transforming growth factor-beta superfamily, are synthesized as large pro-hormones with N-terminal pro- and C-terminal mature domains. Studies have shown that the prodomains template the dimerization of pro-activin forms, that are subsequently processed to yield pro/mature fragments. The prodomains, although important for folding and extracellular localization, must be removed prior to activity. Activin forms retaining the prodomain are biologically inactive.

ELISA 96 Wells	
Method	Quantitative three–step sandwich immunoassay
Incubation Time	Total 3.5 hour incubation at room temperature
Approx Dynamic Range	6 points, 12.7 – 1400 pg/mL
Limit of Detection	4.35 pg/mL
Sample Size/Type	25 µL
Shelf–life	24 months
Product Number	AL–150

Activin B, like certain other members of the TGF-β family, signals through the ActRII receptor (Activin Receptor type II). Human Activin B is a 25.6 kDa disulfide-linked homodimer consisting of two βB chains, each containing 115 amino acid residues. Activin B exhibits a wide range of biological activities, including regulation of embryogenesis, osteogenesis, hematopoiesis, reproductive physiology and hormone secretion from the hypothalamic, pituitary and gonadal glands.

Mouse Activin B*

ELISA #AL-156

ELISA 96 Wells	
Method	Quantitative three–step sandwich immunoassay
Incubation Time	Total 3.5 hour incubation at room temperature
Approx Dynamic Range	6 points, 20 – 2000 pg/mL
Limit of Detection	5.28 pg/mL
Sample Size/Type	50 µL
Shelf–life	24 months
Product Number	AL–156

Activins, like all members of the transforming growth factor-beta superfamily, are synthesized as large pro-hormones with N-terminal pro- and C-terminal mature domains. Studies have shown that the prodomains template the dimerization of pro-activin forms, that are subsequently processed to yield pro/mature fragments. The prodomains, although important for folding and extracellular localization, must be removed prior to activity. Activin forms retaining the prodomain are biologically inactive.

Activin B, like certain other members of the TGF-β family, signals through the ActRII receptor (Activin Receptor type II). Human Activin B is a 25.6 kDa disulfide-linked homodimer consisting of two βB chains, each containing 115 amino acid residues. Activin B exhibits a wide range of biological activities, including regulation of embryogenesis, osteogenesis, hematopoiesis, reproductive physiology and hormone secretion from the hypothalamic, pituitary and gonadal glands.

Glycosylated Fibronectin

ELISA #AL-160

ELISA 96 Wells	
Method	Quantitative three–step sandwich immunoassay
Incubation Time	Total 3 hour incubation at room temperature
Approx Dynamic Range	6 points, 15.5 – 410 ng/mL
Limit of Detection	2.85 ng/mL
Sample Size/Type	10 µL pre-dilution
Shelf–life	24 months
Product Number	AL–160

Fibronectin (Fn) is an extracellular matrix glycoprotein with a wide spectrum of physiological functions. Multiple isoforms of Fn are generated through alternate splicing and proteolysis2. Majority of Fn present in serum or plasma is termed plasma Fn (pFn) which is soluble and produced by hepatocytes. Cellular fibronectin (cFn) is produced by numerous cell types including fibroblasts, endothelial cell and smooth muscle cells3. Specific variants of Fn have the potential to serve as informative biomarkers reflecting the potential known roles of Fn in homeostasis, cell migration, vessel remodeling, inflammation and embryonic differentiation4,5. Both pFn and cFn exhibit complex patterns of glycosylation6. Onco-fetal Glycosylated Fn is a known marker for preterm birth7. Specific glycosylated form of Fn (preferential binding to SNA and other lectins reflecting sialic acid and fucose carbohydrates) is elevated in metabolic complications of pregnancy8. Maternal serum Glycosylated Fn levels are elevated in preeclampsia and its potential complications1. Elevated GlyFn levels in serum during second and third trimester predict risk of PE and potential adverse outcomes.

Follistatin*

ELISA #AL-117

	ELISA 96 Wells
Method	Quantitative three–step sandwich immunoassay
Incubation Time	Total 3 hour at room temperature
Approx Dynamic Range	7 points, 0.612 – 20 ng/mL
Limit of Detection	0.18 ng/mL
Sample Size/Type	50 µL Serum, Plasma
Shelf–life	24 months

Follistatin (FST) is a glycosylated single–chain protein that is expressed in a wide variety of tissues.[1] Activin stimulates pituitary FSH secretion whereas inhibin and follistatin are inhibitory.[2] Follistatin has been shown to be a potent activin–binding protein which acts by neutralizing the actions of the activins.[3] The activin–follistatin binding complex is generally considered to be composed of one activin and two follistatin molecules, and the affinity of binding between follistatin and activin is similar to that of activin for its receptor. Several isoforms of follistatin of molecular weight 31 – 39 kDa have been identified. Molecular analysis of the isoforms indicate that follistatin is encoded by a single gene and that the variety of isoforms arise from alternative splicing, glycosylation and proteolytic cleavage. Alternative splicing occurs at the 3'–terminal of the gene resulting in a precursor form of 317 and 344 amino acids,[4] and then following subsequent cleavage of the 29 amino acid signal peptide, generates 2 mature follistatin isoforms of 288 and 315 amino acids (namely follistatin–288 and follistatin–315).

References

1. Reproduction. 2003 126(2):133–148.
2. Biochem Biophys Res Commun. 1985 126(1):220–226.
3. Science. 1990 247(4944):836–838.
4. Biochem Biophys Res Commun. 1988 152(2):717–723

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Follistatin-Like 3 (FSTL-3)*

ELISA #AL-152

ELISA 96 Wells	
Method	Quantitative three–step sandwich immunoassay
Incubation Time	Total 2.5 hour incubation at room temperature
Approx Dynamic Range	6 points, 0.36 – 12 ng/mL
Limit of Detection	0.164 ng/mL
Sample Size/Type	25 µL Serum, Plasma
Shelf–life	24 months
Product Number	AL–152

Follistatin-like 3 (FSTL-3), also known as Follistatin-related Gene (FLRG) and Follistatin-related protein (FSRP), is a 30-35 kDa secreted glycoprotein. FSTL-3 encodes a novel secreted glycoprotein that is highly homologous to follistatin and binds activins and bone morphogenetic proteins, members of the TGF beta superfamily of growth/differentiation factors. FSTL-3 protein inhibits activin-induced and bone morphogenetic protein-2-induced transcriptional responses in a dose-dependent manner, and its mRNA is abundantly expressed in human placenta,[1] trophoblast,[2] heart,[3] uterus,[3,4] ovary,[5,6] testis[7] and adrenal gland.[6] Mature human FSTL-3 consists of an Activin and Myostatin binding N-terminal domain, two Follistatin-like domains, and two Kazal-like domains.[8-12] BMP-2, -6, and -7 do not compete for Activin A binding, and FSTL-3 binds only weakly to Activin B.[13,14] Unlike Follistatin, FSTL-3 does not contain a heparin-binding domain and does not interact with heparin sulfate proteoglycans.[15,16] FSTL-3 has been studied in regulation of energy balance and metabolism,[17] gestational diabetes[18,19] preeclampsia,[20] and promotor of tumor cell proliferation. [21,22]

References
1. Am. J. Physiol. Endocrinol. Metab. 2010 298:E854.
2. Placenta 2008 29:51.
3. Endocrinology 2008 149(11):5822
3. Mol. Cell. Endocrinol. 2004 218:129.
4. J. Clin. Endocrinol. Metab. 2003 88:4432
5. PLoS ONE 2011 6:e22866.
6. Mol. Hum. Reprod. 2002 8:992.
7. Mol. Endocrinol. 2004 18:979.
8. J. Endocrinol. 2009 202:1.
9. Oncogene 1998 16:2949.
10. J. Biol. Chem. 2008 283:32831.
11. J. Biol. Chem. 2012 287:1043.
12. J. Biol. Chem. 2002 277:40735.
13. Endocrinology 2003 144:1671
14. Endocrinology 2006 147:3586.
15. Endocrinology 2005 146:130.
16. Endocrinology 2005 146:5052.
17. Proc. Natl. Acad. Sci. 2007 104:1348.
18. Clin. Chim. Acta 2012 413:533.
19. Diabetes Care 2010 33:664. 2010
20. Hypertens Preg 2014 33 (3):277.
21. BMC Cancer 2009 9:320.
22. Cancer Res. 2007 67:7223.

Inhibin A

ELISA #AL-123

ELISA 96 Wells	
Method	Quantitative three–step sandwich immunoassay
Incubation Time	Total 4 hour incubation at room temperature
Approx Dynamic Range	6 points, 9.9 – 1188 pg/mL
Limit of Detection	5.45 pg/mL
Sample Size/Type	50 µL Serum, Plasma
Shelf–life	24 months
Product Number	AL–123

Inhibins are heterodimeric protein hormones secreted by granulosa cells of the ovary in the female and Sertoli cells of the testis in the male. They selectively suppress the secretion of pituitary follicle stimulating hormone (FSH) and also have local paracrine actions in the gonads. The fully processed form of the inhibin molecule has a molecular weight of approximately 32 kD and consists of the two distinct chains (α and β), linked by disulfide bridges. Higher molecular weight follicular fluid and serum. In addition, free α–subunit forms, unassociated with a β–subunit, and lacking inhibin bioactivity, are also present. Inhibin A consists of an α–subunit and βA–subunit. Measurements of Inhibin A are shown to be useful in studying human reproductive physiology.

picoInhibin A

ELISA #AL-184

ELISA 96 Wells	
Method	Quantitative three–step sandwich immunoassay
Incubation Time	Total 4 hour incubation at room temperature
Approx Dynamic Range	6 points, 4.4 – 424 pg/mL
Limit of Detection	0.43 pg/mL
Sample Size/Type	50 µL Serum, Plasma
Shelf–life	24 months
Product Number	AL–123

Inhibins are heterodimeric protein hormones secreted by granulosa cells of the ovary in the female and Sertoli cells of the testis in the male. They selectively suppress the secretion of pituitary follicle stimulating hormone (FSH) and also have local paracrine actions in the gonads. The fully processed form of the inhibin molecule has a molecular weight of approximately 32 kD and consists of the two distinct chains (α and β), linked by disulfide bridges. Higher molecular weight follicular fluid and serum. In addition, free α–subunit forms, unassociated with a β–subunit, and lacking inhibin bioactivity, are also present. Inhibin A consists of an α–subunit and βA–subunit. Measurements of Inhibin A are shown to be useful in studying human reproductive physiology.

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Inhibin B*

ELISA #AL-107, CLIA #AL-207

	ELISA 96 Wells	CLIA 96 Wells
Method	Quantitative three–step sandwich immunoassay	
Incubation Time	Total 3.5 hour incubation at room temperature	
Approx Dynamic Range	6 points, 12.7—1390 pg/mL	6 points, 14 – 1344 pg/mL
Limit of Detection	1.6 pg/mL	6.48 pg/mL
Sample Size/Type	50 µL Serum, Plasma	50 µL Serum, Plasma
Shelf–life	24 months	24 months
Product Number	AL–107	AL–207

Inhibin B is a dimeric hormone that is composed of alpha (α) and beta B (β_B) subunits. The free alpha subunits usually do not have any physiological effect. Therefore, the bioactivity of the inhibin depends on the formation of a dimeric α–β structure, and only dimeric forms of inhibin are biologically active. Inhibins are protein hormones secreted by granulosa cells of the ovary in the female and sertoli cells of the testis in the male. They selectively suppress the secretion of pituitary follicle stimulating hormone (FSH) and also have local paracrine actions in the gonads. Significant inhibin B levels have been reported in sertoli cell function (potential marker for spermatogenesis and testicular function), ovarian reserve and granulosa cell tumors.

Ansh✓Check™ Inhibin B Tri–Level Controls*

AL-CTR-402

Inhibin B
Approx Values
Low – 46 ng/mL Medium – 136 ng/mL High – 436 ng/mL
Product Number AL–CTR–402

The Tri–Level Controls are intended for use as assay quality controls to monitor the precision and reproducibility of laboratory testing methods for the determination of Inhibin B and can be run as unknowns against kit calibrators in any human Inhibin B assay. The Inhibin B controls are traceable to

Total Inhibin*

ELISA #AL-134

ELISA 96 Wells	
Method	Quantitative three–step sandwich immunoassay
Incubation Time	Total 3.5 hour incubation at room temperature
Approx Dynamic Range	6 points, 8.3 – 525 pg/mL
Limit of Detection	1.5 pg/mL
Sample Size/Type	50 µL Serum, Plasma
Shelf–life	24 months
Product Number	AL–134

Inhibins are heterodimeric protein hormones secreted by granulosa cells of the ovary in the female and Sertoli cells of the testis in the male. They selectively suppress the secretion of pituitary follicle stimulating hormone (FSH) and also have local paracrine actions in the gonads. The fully processed form of the inhibin molecule has a molecular weight of approximately 32 kD and consists of the two distinct chains (α and β), linked by disulfide bridges. Higher molecular weight forms, with precursor

In addition, free α–subunit forms, unassociated with a β–subunit, and lacking inhibin bioactivity, are also present. Inhibin A consists of an α–subunit and β_A–subunit. Measurements of Inhibin A are shown to be useful in studying human reproductive physiology.

Inhibin, Species-Specific Assays

	Method	Incubation	Approx Range	Detection Limit	Sample Size	Shelf-Life	Product Number
Inhibin A, Canine/Equine/Rodent	ELISA	4 hrs	5.2-758 pg/mL	2.3 pg/mL	15 µL predilution	24 mos	AL-161
Inhibin B, Canine/Equine/Rodent	ELISA	3.5 hrs	6-668 pg/mL	2.3 pg/mL	15 µL predilution	24 mos	AL-163

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PAPP–A*

ELISA #AL-106, CLIA #AL-206

Pregnancy–associated plasma protein A (PAPP–A) is a large placenta–derived glycoprotein. During pregnancy, PAPP–A is produced in high concentrations by the trophoblast and released into maternal circulation. In pregnancy, PAPP–A primarily circulates as a 500 kDa heterotetrameric 2:2 complex with the proform of eosinophil major basic protein (proMBP), which inhibits the proteolytic activity of PAPP–A. Dimeric PAPP–A is the only active form and proteolyses IGFBP–4 and IGFBP–5. Significant amounts of PAPP–A are reported at gestational ages between seven and thirteen weeks.

	ELISA 96 Wells	CLIA 96 Wells
Method	Quantitative two–step sandwich immunoassay	
Incubation Time	Total 3 hour incubation at room temperature	
Approx Dynamic Range	6 points, 37 – 7480 ng/mL	6 points, 25 – 5000 ng/mL
Limit of Detection	10.10 ng/mL	7.73 ng/mL
Sample Size/Type	50 µL Serum, Plasma	50 µL Serum, Plasma
Shelf–life	24 months	24 months
Product Number	AL–106	AL–206

picoPAPP–A*

ELISA #AL-101, CLIA #AL-201

Pregnancy–associated plasma protein A (PAPP–A) is a large placenta–derived glycoprotein. During pregnancy it is produced in high concentrations by the trophoblast and released into maternal circulation. In addition to trophoblasts, PAPP–A expression has been reported in various tissues, including endometrium, testis, kidney, bone, colon, and other adult and fetal tissues.[1–3] PAPP–A is potentially proatherosclerotic and has been proposed as a new marker of inflammation as high serum PAPP–A levels are observed in patients with renal impairment, asthma, lung cancer, etc.[1, 4–7] Studies suggest that the PAPP–A form in non–pregnant females and males is dimeric and is not complexed with proMBP.

	ELISA 96 Wells	CLIA 96 Wells
Method	Quantitative two–step sandwich immunoassay	
Incubation Time	Total 3 hour incubation at room temperature	
Approx Dynamic Range	6 points, 0.1 – 10 ng/mL	6 points, 0.1 – 10 ng/mL
Limit of Detection	0.037 ng/mL	0.025 ng/mL
Sample Size/Type	50 µL Serum, Plasma	50 µL Serum, Plasma
Shelf–life	24 months	24 months
Product Number	AL–101	AL–201

Mouse PAPP–A*

ELISA #AL-158

Data in both humans and mice suggest a role for PAPP-A in aging and age-related diseases.[10] Expression of IGFBP-5 mRNA, a marker of insulin-like growth factor-I (IGF-I) bioactivity known to be regulated by PAPP-A, paralleled the changes in PAPP-A expression with age in kidney, bone, skeletal muscle and thymus. PAPP-A is potentially proatherosclerotic and has been proposed as a new marker of inflammation, as high serum PAPP-A levels are observed in patients with renal impairment, asthma, lung cancer, etc.[1-12] Stimulation of PAPP-A expression by intermittent PTH treatment contributes to PTH bone anabolism in mice.[9] Effect of PAPP-A on tendon structure and mechanical properties have been studied[8], However, quantitative determination of PAPP-A in mouse tissues with age are limited due to unavailability of the mouse PAPP-A ELISA.

	ELISA 96 Wells
Method	Quantitative three–step sandwich immunoassay
Incubation Time	Total 3.5 hour incubation at room temperature
Approx Dynamic Range	6 points, 0.24 – 10.3 ng/mL
Limit of Detection	0.020 ng/mL
Sample Size/Type	50 µL Serum, Plasma
Shelf–life	24 months
Product Number	AL–158

PAPP–A2*

ELISA #AL-109

Pregnancy associated plasma protein–A2 is a novel metalloproteinase identified as a homolog of PAPP–A in the metzincin superfamily of pappalysins.[1–8] PAPP–A2 shares 46% sequence identity with PAPP–A.[3] PAPP–A2 is a noncovalently linked dimer of two 220 kDa subunits. It exhibits robust proteolytic activity against IGFBP–5 and possibly also IGFBP–3.[3, 8] PAPP–A2 is expressed in a wide range of tissues and is abundant in placental syncytiotrophoblasts and the pregnant uterus.[3] The physiological importance of PAPP–A2 is not known.

	ELISA 96 Wells
Method	Quantitative three–step sandwich immunoassay
Incubation Time	Total 2.5 hour incubation at room temperature
Approx Dynamic Range	6 points, 0.19 – 16 ng/mL
Limit of Detection	0.071 ng/mL
Sample Size/Type	50 µL Serum, Plasma
Shelf–life	24 months
Product Number	AL–109

Page References

1. Am J Med Sci. 2009 Apr;337(4):241–4.
2. Gynecol Obstet Invest. 1984;18(2):88–94.
3. Biol Reprod. 1999 Oct;61(4):1083–9.
4. Kidney Blood Press Res. 2004;27(2):88–95.
5. Adv Ther. 2007 Mar–Apr;24(2):362–7.
6. Transplant Proc. 2007 Dec;39(10):3072–6.
7. N Engl J Med. 2001 Oct 4;345(14):1022–9.
8. J Biol Chem. 2001 Jun 15;276(24):21849–53.

Growth Factors

Total IGF–I*

ELISA #AL-121

ELISA 96 Wells	
Method	Quantitative one–step sandwich immunoassay
Incubation Time	Total 1 hour incubation at room temperature
Approx Dynamic Range	6 points, 0.48 – 32.2 ng/mL
Limit of Detection	0.025 ng/mL
Sample Size/Type	50 µL Serum, Plasma
Shelf–life	24 months
Product Number	AL–121

Insulin–like growth factor I is a 7.6 kDa, 70 amino acid residue peptide, which mediates the actions of growth hormone (GH).[1] IGF–I is synthesized as a prohormone, a polypeptide consisting of A, C, B, D, and E domains.[1,2] After post–translational modification, the mature IGF–I consist of the A, C, B and D domains, and is structurally homologous to IGF–II and insulin. In vivo, IGF–I is secreted by the liver and several other tissues and is postulated to have mitogenic and metabolic actions at or near the sites of synthesis; i.e. paracrine effects.[1] IGF–I also appears in the peripheral circulation where it circulates primarily in a high molecular weight tertiary complex with IGF–binding protein–3 (IGFBP–3) and acid–labile subunit (ALS).[2,3] A smaller proportion of IGF–I circulates in association with other IGF–binding proteins.[3]

Bioactive IGF–I*

ELISA #AL-122

ELISA 96 Wells	
Method	Quantitative one–step sandwich immunoassay
Incubation Time	Total 1 hour incubation at room temperature
Approx Dynamic Range	6 points, 0.48 – 32.2 ng/mL
Limit of Detection	0.025 ng/mL
Sample Size/Type	50 µL Serum, Plasma
Shelf–life	24 months
Product Number	AL–122

Recently, there has been research interest in the measurement of serum/plasma unbound IGF–I which, theoretically, is the biologically active fraction. The Ansh Labs Bioactive IGF–I kit uses a highly sensitive 2–site antibody method which allows detection of the fraction of IGF–I in circulation that is not bound to the IGF–binding proteins. The kit may be used as a direct assay to measure the "dissociable" fraction of IGF–I.[5]

Rat / Mouse Total IGF-I

ELISA #AL-137

ELISA 96 Wells	
Method	Quantitative two–step sandwich immunoassay
Incubation Time	Total 1.5 hour incubation at room temperature
Approx Dynamic Range	6 points, 0.5 – 20.08 ng/mL
Limit of Detection	0.0397 ng/mL
Sample Size/Type	10 µL Serum, Plasma
Shelf–life	24 months
Product Number	AL–137

The Ansh Labs Total Rat/Mouse IGF-I Assay uses an acidification and neutralization method to dissociate IGF-I from all the binding proteins. IGF-I levels are quantified in the extracted samples using a highly sensitive and specific enzyme-linked immunosorbent assay.

Page References

1. Endocrin Rev 10:68–91, 1989.
2. J Biol Chem 264:11843–11848, 1989
3. Vit Horm 47:1–114, 1993.
4. J Clin Invest 77:1768-1775, 1986
5. Endocrinology 133:1797–1802, 1993
6. Endocrinology 129:2254-2256, 1991
7. New Engl J Med 317:137-140, 1987
8. J Clin Endocrinol Metab 75:30-36, 1992
9. Endocrine Society, Anaheim, 1994 (poster #939)
10. Endocrine Society, Washington, D.C., 1991.
11. Nature 310:775-777, 1984
12 Cytokine Growth Factor Rev. 2015 Jun;26(3):329-46
13. Endocrinology 2008;149:2051–61
14. Endocrinology 1999;140:5488–96

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Rat / Mouse Free IGF-I

ELISA #AL-136

ELISA 96 Wells	
Method	Quantitative one–step sandwich immunoassay
Incubation Time	Total 1 hour incubation at room temperature
Approx Dynamic Range	6 points, 0.25 – 10.04 ng/mL
Limit of Detection	0.1108 ng/mL
Sample Size/Type	10 µL Serum, Plasma
Shelf–life	24 months
Product Number	AL–136

Recently, there has been research interest in the measurement of serum/plasma "unbound" IGF-I which, theoretically, is the biologically active fraction. Although the existence of a true unbound IGF serum/plasma compartment is controversial, pharmacokinetic studies indicate that a small percentage of plasma IGF-I is not associated with IGF-binding proteins.[1,2] Unbound IGF-I has also been observed in saliva.[3] In addition, it appears that IGF-I may exert a tonic hypoglycemic effect under normal conditions that is inhibited by exogenous IGFBP-1 Various methods have been used to estimate the unbound (or freely dissociated) IGF-I fraction.[7,8,9] Size-exclusion chromatography and filtration methods.[7,8] have the theoretical disadvantage of altering the sample matrix and the equilibrium between IGF-I and IGFBP's. A direct detection unbound IGF-I assay using immobilized IGFBP-3 for capture and anti-IGF-I antibody for detection has been reported.[10]

IGF–II*

ELISA #AL-131

ELISA 96 Wells	
Method	Quantitative two–step sandwich immunoassay
Incubation Time	Total 1.5 hour incubation at room temperature
Approx Dynamic Range	6 points, 20 – 1239 ng/mL
Limit of Detection	1.328 ng/mL
Sample Size/Type	25 µL Serum, Plasma
Shelf–life	24 months
Product Number	AL–131

Insulin-like growth factor II (IGF-II) is a 7.5 kDa, 67 amino acid peptide, which is thought to mediate some of the actions of growth hormone (GH).[1] IGF-II is synthesized as a prohormone, a polypeptide consisting of A, C, B, D and E domains.[1,11] After post-translational modification, the mature IGF-II consists of the A, C, B and D domains, and is structurally homologous to IGF-I and proinsulin. Significant quantities of pro-IGF-II containing the E-peptide extension may also be secreted into the circulation.

IGFBP-2*

ELISA #AL-140

ELISA 96 Wells	
Method	Quantitative three–step sandwich immunoassay
Incubation Time	Total 2.5 hour incubation at room temperature
Approx Dynamic Range	6 points, 0.45 – 16 ng/mL
Limit of Detection	0.08 ng/mL
Sample Size/Type	10 µL Serum, Plasma
Shelf–life	24 months
Product Number	AL–140

IGFBP-2 is a widely expressed protein with functions in bone and skeletal muscle development, and regulation of body growth and composition[12]. Pure congenic IGFBP2 -/- mice show gender and bone compartment-specific phenotypes[13]. IGFBP-2 overexpression mice have reduced body weight suggesting a role in postnatal growth by potentially regulating IGF-I bioavailability[14].

Page References

1. Endocrin Rev 10:68–91, 1989.
2. J Biol Chem 264:11843–11848, 1989
3. Vit Horm 47:1–114, 1993.
4. J Clin Invest 77:1768-1775, 1986
5. Endocrinology 133:1797–1802, 1993
6. Endocrinology 129:2254-2256, 1991
7. New Engl J Med 317:137-140, 1987
8. J Clin Endocrinol Metab 75:30-36, 1992
9. Endocrine Society, Anaheim, 1994 (poster #939)
10. Endocrine Society, Washington, D.C., 1991.
11. Nature 310:775-777, 1984
12 Cytokine Growth Factor Rev. 2015 Jun;26(3):329-46
13. Endocrinology 2008;149:2051–61
14. Endocrinology 1999;140:5488–96

* Within the U.S., intended for Research Use Only (RUO). Not for use in diagnostic or therapeutic procedures.

Total IGFBP–3*

ELISA #AL-120

Human Insulin–like growth factor binding protein–3 (IGFBP–3) is the main binding protein for IGF–I and IGF–II in postnatal serum and a component of the ~150 kDa ternary complex. This complex consists of IGFBP–3, a molecule of IGF–I or IGF–II and ALS. IGFBP–3, along with ALS regulates the actions of the IGFs. The molar concentration of IGFBP–3 in normal serum is proportional to the molar concentration of total IGFs (i.e. IGF–I + IGF–II). Measurement of IGFBP–3 levels in serum is a useful research tool for the evaluation of GH–related disorders.

ELISA 96 Wells	
Method	Quantitative two–step sandwich immunoassay
Incubation Time	Total 1.5 hour incubation at room temperature
Approx Dynamic Range	6 points, 7.5 – 216 ng/mL
Limit of Detection	0.3 ng/mL
Sample Size/Type	25 µL Serum, Plasma
Shelf–life	24 months
Product Number	AL–120

Intact IGFBP–3*

ELISA #AL-149

Insulin–like growth factor binding protein–4 is a member of the insulin–like growth factor binding protein (IGFBP) family and encodes a protein with an IGFBP domain and a thyroglobulin type–I domain. The protein binds both insulin–like growth factors (IGFs I and II) and circulates in the plasma in both glycosylated and non–glycosylated forms. Binding of this protein prolongs the half–life of the IGFs and alters their interaction with cell surface receptors.

ELISA 96 Wells	
Method	Quantitative two–step sandwich immunoassay
Incubation Time	Total 1.5 hour incubation at room temperature
Approx Dynamic Range	6 points, 3.5 – 117 ng/mL
Limit of Detection	1.37 ng/mL
Sample Size/Type	25 µL Serum, Plasma
Shelf–life	24 months
Product Number	AL–149

Total IGFBP–4*

ELISA #AL-126

The IGFBP–4 is member of the insulin–like growth factor binding protein (IGFBP) family and encodes a protein with an IGFBP domain and a thyroglobulin type–I domain. The protein binds to both insulin–like growth factors (IGFs I and II) and circulates in the plasma in both glycosylated and non–glycosylated forms and undergoes cleavage in presence of dimeric PAPP–A to form its N–terminal and C–terminal fragments with molecular masses of 18 and 14 kDa. An increased level of intact and fragment IGFBP–4 are found in children and adults with chronic renal failure.

ELISA 96 Wells	
Method	Quantitative three–step sandwich immunoassay
Incubation Time	Total 2.5 hour incubation at room temperature
Approx Dynamic Range	6 points, 50 – 702.2 ng/mL
Limit of Detection	4.735 ng/mL
Sample Size/Type	25 µL Serum, Plasma
Shelf–life	24 months
Product Number	AL–126

Intact IGFBP–4*

ELISA #AL-128

The ratio of Total to Intact IGFBP-4 concentration measured in individual subjects over time may help normalizes the IGFBP-4 variability between subjects and also increase the detection of increased PAPP-A activity in myocardial infarction subjects. The immunoassay methods designed for the measurement of Total and Intact IGFBP-4 in patient samples could be of practical value for the diagnosis or prediction of various pathologies.

ELISA 96 Wells	
Method	Quantitative three–step sandwich immunoassay
Incubation Time	Total 2.5 hour incubation at room temperature
Approx Dynamic Range	6 points, 1.5 – 96.16 ng/mL
Limit of Detection	0.669 ng/mL
Sample Size/Type	25 µL Serum, Plasma
Shelf–life	24 months
Product Number	AL–128

* Within the U.S., intended for Research Use Only (RUO). Not for use in diagnostic or therapeutic procedures.

IGFBP–5*

ELISA #AL-127

IGFBP–5 is the most conserved of the IGFBPs and has been highlighted as a focal regulatory factor during the development of several key cell lineages. In mice, IGFBP–5 is expressed in the embryo from early development, principally in the myotomal component of the somites and developing central nervous system.[1] The serum IGFBP–5 forms a ternary complex with IGF–I or IGF–II and the acid–labile subunit.[2] IGFBP–5 is up–regulated in aggressive pediatric cancer, rhabdomyosarcoma,[3] in the progression of prostate cancers to androgen independence,[4] and in smooth muscle–derived uterine leiomyoma,[5] indicating a function in neoplasia.

ELISA 96 Wells	
Method	Quantitative two–step sandwich immunoassay
Incubation Time	Total 2 hour incubation at room temperature
Approx Dynamic Range	6 points, 15.3 – 902 ng/mL
Limit of Detection	4.4 ng/mL
Sample Size/Type	20 µL Serum, Plasma
Shelf–life	24 months
Product Number	AL–127

References:
1. Endocrinology 1994 134, 954–962.
2. J. Biol. Chem. 1998 273, 6074–6079.
3. Proc. Natl. Acad. Sci. 1999 USA 96, 13264–13269.
4. Cancer Res. 2000 60, 3058–3064.
5. Fertil. Steril. 2002 78, 114–121.

Stanniocalcin 2*

ELISA #AL-143

STC2 function in hormone signaling is indicated by reports showing inhibition of ovarian progesterone biosynthesis and transactivation of androgen receptor.[2,3] STC2 exhibits anti-apoptotic functions in cells subjected to endoplasmic reticulum and hypoxic stress by a mechanism involving inhibition of plasma membrane store-operated calcium entry.[4,5] STC2 overexpression mice exhibit growth restriction, while knockout mice are larger than wild-type littermates.[1] STC2 function in growth regulation was demonstrated by its ability to interact with PAPP-A, potentially inhibiting its proteolytic activity towards IGFBP-4 and causing reduced IGF signaling. [6,7,8] STC2-mediated PAPPA inhibition was also reported to reduce atherosclerosis in hypercholesterolemic mice.

ELISA 96 Wells	
Method	Quantitative two–step sandwich immunoassay
Incubation Time	Total 3 hour incubation at room temperature
Approx Dynamic Range	6 points, 0.85 – 55 ng/mL
Limit of Detection	0.033 ng/mL
Sample Size/Type	25 µL Serum, Plasma
Shelf–life	24 months
Product Number	AL–143

References:
1. Mol Cell Endocrinol. 26;349(2):272-80.
2. BMB Rep. 47(11):643-8.
3. Endocrinology 146, 469–476.
4. Mol. Cell Biol. 24, 9456–9469.
5. Mol.Cell Biol. 31, 3710–3722.
6. Hum Reprod. 31(4):866-74
7. Ann Endocrinol (Paris). 77(2):90-6
8. J Biol Chem 6;290(6):3430-9

PAPP-A/Stanniocalcin 2 Complex*

ELISA #AL-166

Mammalian stanniocalcin-2 (STC2) is a secreted polypeptide widely expressed in developing and adult tissues. However, although transgenic expression in mice is known to cause severe dwarfism, and targeted deletion of STC2 causes increased postnatal growth, its precise biological role has remained unknown. STC2 potently inhibits the proteolytic activity of the growth promoting metalloproteinase, pregnancy associated plasma protein- A (PAPP-A). Proteolytic inhibition requires covalent binding of STC2 to PAPP-A, and is mediated by a disulfide bond, which involves Cys120 of STC2. Binding of STC2 prevents PAPP-A cleavage of insulin-like growth factor binding protein (IGFBP)-4 and hence release within tissues of bioactive IGF, required for normal growth. Concordantly, STC2 efficiently inhibits PAPP-A-mediated IGF receptor signaling in vitro, and that transgenic mice expressing a mutated variant of STC2, STC2(C120A), which is unable to inhibit PAPPA, grow like wild-type mice. STC2 is a novel proteinase inhibitor and a previously unrecognized extracellular component of the IGF system.

ELISA 96 Wells	
Method	Quantitative three–step sandwich immunoassay
Incubation Time	Total 3.5 hour incubation at room temperature
Approx Dynamic Range	6 points, 0.26 – 23.37 ng/mL
Limit of Detection	0.014 ng/mL
Sample Size/Type	25 µL Serum, Plasma
Shelf–life	24 months
Product Number	AL–166

References:
1. Jepsen MR et al. JBC Papers in Press. Dec 22, 2014 as Manuscript M114.611665.

* Within the U.S., intended for Research Use Only (RUO). Not for use in diagnostic or therapeutic procedures.

Glucagon Regulation

C-Peptide of Insulin*

ELISA #AL-151

Although the C-peptide of insulin is biologically inactive, it has a longer circulating half-life than insulin and undergoes relatively minimal hepatic metabolism. In addition, C-peptide of insulin assays may be analytically more sensitive than insulin assays. Because of these factors, measurement of C-peptide of insulin may be useful in evaluating insulin secretion in a variety of clinical conditions.[1-3]

ELISA 96 Wells	
Method	Enzymatically amplified three–step sandwich immunoassay
Incubation Time	Total 1 hour incubation at room temperature
Approx Dynamic Range	6 points, 0.2 – 10.9 ng/mL
Limit of Detection	0.018 ng/mL
Sample Size/Type	20 µL Serum, Plasma
Shelf–life	24 months
Product Number	AL–151

References:
1. New Engl J Med 295:207-209, 1976
2. Arch Dis Child 59:1096-1098, 1984
3. Endocrinol Metab Clin North Am 18:27-43, 1989

Glucagon*

ELISA #AL-157

Glucagon and Oxyntomodulin, a peptide hormone secreted by the alpha cells of pancreas, share identical amino acid sequence in the N-terminal 29 aa. Glucagon is a 29-amino acid polypeptide processed from proglucagon in pancreatic alpha cells.[1] In intestinal L-cells proglucagon is cleaved into glicentin, corresponding to proglucagon residues no 1-69. Glicentin can further be processed into oxyntomodulin, corresponding to proglucagon residues no 33-69. These peptides are released simultaneously upon stimulation. Glucagon has shown to have an effect opposite to that of insulin, i.e. it raises blood glucose levels. It causes the liver to convert glycogen into glucose, which is then released into the blood stream.[2-4] During hypoglycaemia, glucagon secretion offers a protective feedback mechanism, defending the organism against damaging effects of glucose deficiency in the brain and nerves.[5]

ELISA 96 Wells	
Method	Quantitative two–step sandwich immunoassay
Incubation Time	Total 2.5 hour incubation at room temperature
Approx Dynamic Range	6 points, 20.9 – 313 pg/mL
Limit of Detection	2.1 pg/mL
Sample Size/Type	50 µL Serum, Plasma
Shelf–life	24 months
Product Number	AL–157

Reference:
1. Physiol Rev 95:513-548, 2005
2. Diabetes, Obesity and Metabolism 13:965-971, 2011
3. Am J Physiol Endocrinol Metab 287: E199-206, 2004
4. Results Probl Cell Differ 50:121-135, 2010
5. Advances in Pharmacology 52:151-171, 2005

GLP-1*

ELISA #AL-172

GLP-1 is a 30-amino acid gut hormone secreted from the intestinal L-cells. The GLP-1 sequence is highly conserved among mammals and is released in its active form (7-36) in response to food intake. It is quickly degraded into its inactive form (9-36) after selective cleavage by dipeptidyl peptidase-4 (DPP-4). GLP-1 reduces glucose levels by regulating pancreatic secretion, slowing gastric emptying and lowering the desire for food intake. Therefore, it is an important biomarker for the study of diabetes and obesity.[1-5]

ELISA 96 Wells	
Method	Quantitative two–step sandwich immunoassay
Incubation Time	Total 2 hour incubation at room temperature
Approx Dynamic Range	6 points, 3 – 290 pg/mL
Limit of Detection	0.243 pg/mL
Sample Size/Type	25 µL Plasma
Shelf–life	24 months
Product Number	AL–172

Reference:
1. Diabetes 2006 Dec; 55(Supplement 2): S70-S77.
2. Trends in Molecular Medicine 2008; 14(4): 161 – 168.
3. Diabetes Obes Metab. 2014 Nov;16(11):1155-64.
4. PLoS One. 2017 Aug 2;12(8): 1-11.
5. Metabolism. 2014 Jan;63(1):9-19.

GLP-2*

ELISA #AL-174

GLP-2 is released in response to stimulation by luminal nutrients, such as glucose, fatty acids and dietary fiber[1]. GLP-2 is cleaved by proteolytic enzymes into active form (1-33) and inactive form (3-33). GLP- 2 is involved in regulating gut mucosal growth and integrity. The main biological actions of GLP-2 are related to the regulation of energy absorption and maintenance of mucosal morphology, function and integrity of the intestine; however, recent experimental animal studies suggested that GLP-2 exerts beneficial effects on glucose metabolism in conditions related to increased uptake of energy, such as obesity.[2]

ELISA 96 Wells	
Method	Quantitative three–step sandwich immunoassay
Incubation Time	Total 2.5 hour incubation at room temperature
Approx Dynamic Range	6 points, 0.14 – 7.5 ng/mL
Limit of Detection	0.011 ng/mL
Sample Size/Type	50 µL Plasma
Shelf–life	24 months
Product Number	AL–174

References:
1. Journal of Endocrinology (2016) 229, R57–R66
2. Physiol Rev 97: 721–766.

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Major Proglucagon Fragment*

ELISA #AL-175

Major Proglucagon Fragment (MPGF) is an 86-amino acid hormone secreted from the pancreas[1-3]. MPGF is identified as the Carboxy terminal portion of proglucagon that contains two glucagon-related sequences. The MPGF sequence is highly conserved among mammals. Tissue specific processing of proglucagon in the pancreas releases MPGF. Intestinal processing of MPGF releases the Glucagon-Like Peptides 1 and 2 (GLP-1 and GLP-2)[1-5]. Measuring the circulating levels of MPGF will help in understanding the defective or abnormal metabolic pathways leading to diabetes and obesity. This kit is designed to measure MPGF.

ELISA 96 Wells	
Method	Quantitative two–step sandwich immunoassay
Incubation Time	Total 2 hour incubation at room temperature
Approx Dynamic Range	6 points, 3 – 290 pg/mL
Limit of Detection	0.243 pg/mL
Sample Size/Type	25 µL Plasma
Shelf–life	24 months
Product Number	AL–175

References:
1. Physiol Rev 97: 721–766.
2. J Clin Invest. 127(12):4217-4227.
3. Protein Expr Purif 28:15–24.
4. Journal of Endocrinology (2016) 229, R57–R66.
5. Endocrine Research. Vol. 41, Iss. 4.

Oxyntomodulin*

ELISA #AL-139

OXM causes weight loss in obese patients via suppression of food intake and increase in energy expenditure.[1] It is reported to have varied tissue-specific effects; and stimulates the pancreas to secrete insulin, somatostatin and glucagon. OXM administration was also reported to increase heart-rate in mice.[1] Using mass-spectrometry based profiling of human plasma, it was shown that Type 2 diabetes patients have lower levels of OXM and levels increase more than 10-fold after gastric bypass surgery.[2] OXM is therapeutically used to lower glucose levels and suppress appetite resulting in weight loss.

ELISA 96 Wells	
Method	Quantitative two–step sandwich immunoassay
Incubation Time	Total 2 hour incubation at room temperature
Approx Dynamic Range	6 points, 3 – 290 pg/mL
Limit of Detection	0.243 pg/mL
Sample Size/Type	25 µL Plasma
Shelf–life	24 months
Product Number	AL–139

References:
1. J Endocrinol. 215(3):335-46
2. EBioMedicine.7:112-20

Neuronal Disorders

MBP*

Myelin is the insulating sheath which surrounds neurons. In the central nervous system 30% of the myelin is composed of myelin basic protein.[1] The function of MBP is not completely defined, although it may provide structural support. Human MBP is an 18.5 kDa amino acid monomeric protein. The structure of MBP can be divided into 3 segments joined by phenylalanine doublets: A-residues 1-43; B-residues 44-89; and C-residues 90–170.[1,2] Segments A and C, the N- and C- termini of the protein, respectively, are highly homologous. Myelin immunoreactivity in cerebrospinal fluid (CSF) is generally due to the B–segment; A and C segments are usually present in low or undetectable levels.[3, 4]

	ELISA 96 Wells	CLIA 96 Wells
Method	Enzymatically amplified three–step sandwich immunoassay	
Incubation Time	Total 2.5 hour incubation at room temperature	
Approx Dynamic Range	6 points, 0.35 – 10.5 ng/mL	6 points, 0.34 – 17.2 ng/mL
Limit of Detection	0.093 ng/mL	0.074 ng/mL
Sample Size/Type	100 µL Cerebrospinal Fluid	
Shelf–life	24 months	24 months
Product Number	AL–108	AL–208

References:
1. J Biol Chem. 1971 Sep 25;246(18):5770–84
2. Comp Biochem Physiol B. 1978;59(4):299–306
3. Ann Neurol. 1986 Sep;20(3):329–36
4. J Neuroimmunol. 1988 Aug;19(1–2):47–57

Research Reagents

Ansh Labs is dedicated to the research and discovery of novel research markers. Our intense pursuit of the best clinical diagnostic assays possible usually results in the development of many additional buffers, proteins and monoclonal antibodies that are useful biomedical research tools for applications such as:

- Affinity Purification (AP)
- Blocking/Neutralizing Antibodies
- ELISA Capture/Detection/Competitive
- Immunohistochemistry (IHC)
- Western Blot (WB)
- Immunoassay (IA)
- Calibrators and Controls

Monoclonal Antibodies - Reproductive Function

	Description	Isotype	Epitopes & Specificity	Species Reactivity	Size
AB-324-AB016	BMP-15 mAb	IgG2A	Pro-mature, mature	Human, Mouse	100 µg
AB-324-AB018	BMP-15 mAb	IgG2A	Pro-mature, mature	Human, Mouse	100 µg
AB-307-AF002	Follistatin mAb	IgG1	Domain 1	Human	100 µg
AB-307-AF006	Follistatin mAb	IgG1	Domain 3	Human	100 µg
AB-325-AG012	GDF-9 mAb	IgG1	Pro-mature	Human, Mouse	100 µg
AB-325-AG013	GDF-9 mAb	IgG2A	Pro-mature	Human, Mouse	100 µg
AB-304-AI007	Inhibin Alpha mAb	IgG2a	Inhibin α subunit	Human	100 µg
AB-304-AI043	Inhibin Alpha mAb	IgG1	Inhibin α subunit	Human	100 µg
AB-305-AI006	Inhibin A mAb	IgG1	Inhibin A/Activin A βA Subunit	Human	100 µg
AB-305-AI063	Inhibin A mAb	IgG1	βA subunit	Human	100 µg
AB-306-AI005	Inhibin B mAb	IgG1	Inhibin B/Activin B βB subunit	Human	100 µg
AB-301-AP015	PAPP-A mAb	IgG1	PAPP-A specific	Human	100 µg
AB-301-AP016	PAPP-A mAb	IgG1	PAPP-A specific	Human, Mouse	100 µg
AB-301-AP028	PAPP-A mAb	IgG1	PAPP-A specific	Human	100 µg
AB-301-AP035	PAPP-A mAb	IgG1	PAPP-A specific	Human	100 µg
AB-302-AP022	PAPP-A2 mAb	IgG1	PAPP-A2 specific	Human	100 µg
AB-302-AP023	PAPP-A2 mAb	IgG2b	PAPP-A2 specific	Human	100 µg

Monoclonal Antibodies - Other

	Description	Isotype	Epitopes & Specificity	Species Reactivity	Size
AB-314-AM003	MBP mAb	IgG1	B region	Human	100 µg
AB-314-AM004	MBP mAb	IgG2a	B region	Human	100 µg
AB-315-V001	Vitamin D mAb	IgG1	Vitamin D3	Human	100 µg

Monoclonal Antibodies - Growth Factors

	Description	Isotype	Epitopes & Specificity	Species Reactivity	Size
AB-309-AI027	IGF-I mAb	IgG1	Free IGF-I	Human, Rat	100 µg
AB-309-AI029	IGF-I mAb	IgG1	IGF-I specific	Human	100 µg
AB-309-AI053	IGF-I mAb	IgG1	IGF-I specific	Human, Rat, Bovine, Equine, Canine	100 µg
AB-309-AI054	IGF-I mAb	IgG1	IGF-I specific	Human, Bovine, Equine, Canine	100 µg
AB-312-AI061	IGF-II mAb	IgG1	IGF-II specific	Human	100 µg
AB-312-AI062	IGF-II mAb	IgG1	IGF-II specific	Human	100 µg
AB-313-AI064	IGFBP-2 mAb	IgG1	IGFBP-2 specific	Human	100 µg
AB-313-AI065	IGFBP-2 mAb	IgG1	IGFBP-2 specific	Human	100 µg
AB-310-AI034	IGFBP-3 mAb	IgG1	IGFBP-3 specific	Human	100 µg
AB-310-AI036	IGFBP-3 mAb	IgG1	IGFBP-3 specific	Human	100 µg
AB-310-AI038	IGFBP-3 mAb	IgG1	IGFBP-3 specific	Human	100 µg
AB-308-AI025	IGFBP-4 mAb	IgG1	N Terminal	Human	100 µg
AB-308-AI039	IGFBP-4 mAb	IgG1	C Terminal	Human	100 µg
AB-308-AI042	IGFBP-4 mAb	IgG1	C Terminal	Human	100 µg
AB-311-AI045	IGFBP-5 mAb	IgG1	N-Mid Region	Human	100 µg
AB-311-AI046	IGFBP-5 mAb	IgG2b	N-Mid Region	Human	100 µg

Recombinant Proteins

	Description	Source	Size
AG-301-BP024	Recombinant Dimeric PAPP-A	CHO-S Cells	5 µg
AG-305-AI035	Recombinant Human Inhibin A	CHO-S Cells	5 µg
AG-306-BI043	Recombinant Human Inhibin B	CHO-S Cells	5 µg
AG-302-BP033	Recombinant PAPP-A2	CHO-S Cells	5 µg

Buffers

	Description	Size
AA–006–1000	AMH Protein Stabilizing Buffer	1 L

Luminogenic Substrate

	Description	Size
ALA–100A–1000	AnshLite Substrate Part A	1000 mL
and ALB–100B–1000	AnshLite Concentrate Catalyst Part B	5 mL
ALA–100A	AnshLite Substrate Part A	12 mL
and ALB–100B	AnshLite Concentrate Catalyst Part B	0.075 mL

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Partial Bibliography (updated complete list available at www.AnshLabs.com)

Ansh Labs extends our gratitude to all the researchers and clinicians around the world who have placed their confidence in the Ansh Labs products when conducting scientific studies. Our team has developed some of the most challenging hormone assays over the years and we are back in the laboratory developing the next generation of immunoassays for reproductive function, growth factors, and other specialized endocrine areas.

Aiken CE, Tarry-Adkins JL, Ozanne SE. Transgenerational Developmental Programming of Ovarian Reserve. Scientific Reports, 5:16175. Published 2015 Nov 3. [Rat / Mouse AMH ELISA AL-137].

Al-Hakeim HK, Jebur IM, Alkhafaji RS. Serum Anti-Zona Pellucida Antibodies Level is Correlated with Estradiol Level in Women with In Vitro Fertilization Failure. Int J Pharm Pharm Sci, Vol 8, Issue 5, 41-44. [AMH ELISA AL-105].

Araujo DB, Yamakami LYS, Aikawa NE, Bonfa E, Vianna VST, Pasoto SG, Pereira RMR, Serafin PC, Borda EF, Silva CA. Ovarian reserve in adult patients with childhood-onset lupus: a possible deleterious effect of methotrexate? Scand J Rheumatol. 2014; 43:503-511 [AMH ELISA AL-105]

Atkins HM, Willson CJ, Silverstein M, Jorgensen M, Floyd E, Kaplan JR, Appt SE. Characterization of ovarian aging and reproductive senescence in vervet monkeys (Chlorocebus aethiops sabaeus). Comparative Medicine. 2014 Feb; 64(1):55-62. [AMH ELISA AL-105]

Attaelmannan M, Pandian R, Sadri M, Thomassian K, Khachatryan S, Kumar A. Development of a Broad-range, Sensitive, and Specific Immunoassay for Anti-Müllerian Hormone (AMH) with No Dilution Issues. Poster session presented at: American Association for Clinical Chemistry; 2013; Jul 30-Aug 1; Houston, TX. [AMH CLIA AL-205]

Attaelmannan M, Pandian R, Thomassian K, Khachatryan S, Kumar A. Development and Validation of an Improved Chemiluminescent Assay for Inhibin B. Poster session presented at: American Association for Clinical Chemistry; 2013; Jul 30-Aug 1; Houston, TX. [Inhibin B CLIA AL-207]

Aydogan B, Mirkin S. The utility of measuring anti-Müllerian hormone in predicting menopause. Climacteric. 2015 Dec; 18(6):777-89. [AMH ELISA AL-105]

Baldrighi JM, Sá Filho MF, Batista EO, Lopes RN, Visintin JA, Baruselli PS, Assumpção ME. Anti-Mullerian hormone concentration and antral ovarian follicle population in Murrah heifers compared to Holstein and Gyr kept under the same management. Reproduction in Domestic Animals. 2014 Dec; 49(6):1015-20. [Bovine AMH ELISA AL-114]

Barad D, Kushnir V, Khanna P, Gleicher N. Clinical in Vitro Fertilization (IVF) Outcomes Based on Comparative Anti-Müllerian Hormone (AMH) Testing with a Standard and New Highly Sensitive Assay. Poster session presented at: Endocrine Society's 96th Annual Meeting; 2014; June 21-24; Chicago, IL. [picoAMH ELISA AL-124]

Barrett, C. 2014. Effects of Photoperiod on Novelty Preference in Preadolescent Siberian Hamster (Phodopus sungorus) Pups [Thesis]. [Ithaca (NY)]: Cornell University. [Rat and Mouse AMH ELISA AL-113]

Baruselli PS, Batista EOS, Vieira LM, Souza Ah. Relationship between follicle population, AMH concentration and fertility in cattle. Anim Reprod. 2015 Sep. 12 (3): 487-497[Bovine AMH ELISA AL-114]

Batistia E, Guerreiro BM, Freitas BG, Silva JCB, Vieira LM, Ferreira RM, Rezende RG, Basso AC, Lopes, R, Renno FP, Souza AH, Baruselli PS. Plasma anti-Mullerian hormone as predictive endocrine marker to select Bos taurus (Holstein) and Bos indicus (Nelore) calves for in vitro embryo production. Domestic Animal Endocrinology. 2015 Aug 54: 1-9 epub ahead of print. [Bovine AMH ELISA AL-114]

Batistia E, Macedo G, Sala R, Ortolan M, Sa Filho M, Del Valle T, Jesus E, Lopes R, Renno F, Baruselli P. Plasma Anti-mullerian Hormone as a Predictor of Ovarian Antral Follicular Population in Bos indicus (Nelore) and Bos Taurus (Holstein) Heifers. Reproduction in Domestic Animals. 2014 Jun; 49(3):448-452. [Bovine AMH ELISA AL-114]

Becker M, Haluska P, Bale L, Oxvig C, Conover C. A Novel Neutralizing Antibody Targeting Pregnancy-Associated Plasma Protein-A Inhibits Ovarian Cancer Growth and Ascites Accumulation in Patient Mouse Tumorgrafts. Mol Cancer Ther. 2015 Apr;14(4):973-81. Epub 2015 Feb 18. [picoPAPP-A ELISA AL-101; Bioactive IGF-I ELISA AL-122; Total IGFBP-4 ELISA AL-126; Intact IGFBP-4 ELISA AL-128; Rat / Mouse IGF-I ELISA AL-137].

Bernardi L, Chavez, Baird D, Marnethon M, Marsh E. Factor associated with low Anti-Mullerian Hormone (AMH) levels in young African American women. Poster session at American Society for Reproductive Medicine; 2015 Oct 17-21; Baltimore, Maryland [AMH ELISA AL-105]

Bieghs L, Brohus M, Kristensen IB, Abildgaard N, Bøgsted M, Johnsen HE, et al. Abnormal IGF-Binding Protein Profile in the Bone Marrow of Multiple Myeloma Patients. PLoS ONE 11(4): e0154256. 2016 April 25 [IGFBP-2 mAB]

Bo G, Anduaga I, Bernal B, moreira G, Cedeno A, Barajas J, Pelizzari M, Andrada S, Tribulo A. Serum AMH concentrations and in vitro embryo production in beef cattle. Poster session presented at 42nd International Embryo Transfer Society Annual Meeting; 2016 Jan; Louisville, Kentucky [Bovine AMH ELISA AL-114]

Boldt H, Bale L, Resch Z, Exvig C, Overgaard M, Conover C. Effects of Mutated Pregnancy-Associated Plasma Protein-A on Atherosclerotic Lesion Development in Mice. Endocrinology. 2013 January; 154(1):246-252. [AL-106 PAPP-A ELISA]

Broer SL, Broekmans FJM, Laven JSE, Fauser, BCJM. Anti-Müllerian hormone: ovarian reserve testing and its potential clinical implications. Hum. Reprod. Update. 2014 May 12. [picoAMH ELISA, AL-124].

Brohus M, Gorbunova V, Faulkes C, Overgaard MT, Conover CA. The Insulin-Like Growth Factor System in the Long-Lived Naked Mole-Rat. PLOS ONE. 2015 December 22. [picoPAPP-A ELISA AL-101].

Buckbinder J, Mucowski S, Burks H, Stanczyk F, Hodis H, Mack W, Bendikson K, Shoupe D. The Detection and Clinical Utilization of Anti-Mullerian Hormone (AMH) in Postmenopausal Women Using the New Highly Sensitive ELISA. Poster session at American Society for Reproductive Medicine; 2015 Oct 17-21; Baltimore, Maryland [picoAMH ELISA AL-124].

Burks H, Ross L, Opper N, Stanczyk F. Can Ultrasensitive Anti-Mullerian Hormone Testing Predict Failed Response to Ovarian Stimulation? PCRS Abstracts Vol. 101, No. 2, Supplement, February 2014 [picoAMH ELISA, AL-124].

Burks HR, Ross L, Opper N, Paulson E, Stanczyk F, Chung K. Can highly sensitive antimullerian hormone testing predict failed response to ovarian stimulation? Fertility and Sterility. 2015 Sep; 104(3):643-648. [AMH ELISA AL-105, picoAMH ELISA AL-124]

Bustillo M, Alford C, Collazo I, Pomeroy K. The Correlation of Anti-Mullerian Hormone Concentrations to Oocyte Maturity at Retrieval. Poster session at American Society for Reproductive Medicine; 2015 Oct 17-21; Baltimore, Maryland [AMH ELISA AL-105]

Chachere JA. Anti-Mullerian Hormone Concentrations as a Predictor of Superovulation Response and Conception Rate in Beef Females. [Thesis]. [College Station (TX)]: Texas A&M University. [Bovine AMH ELISA, AL-114].

Chai J, Cameron D, Howie F, Anderson A. A Highly-Sensitive AMH Assay Improves Analysis of Ovarian Function Following Chemotherapy for Early Breast Cancer. European Journal of Cancer 2014 Sep; 50(14):2367-74. [picoAMH ELISA AL-124]

Chai J, Howie F, Cameron DA, Anderson, RA. Analysis of ovarian function following chemotherapy for early breast cancer using an ultra-sensitive assay. Poster session presented at: European Society for Human Reproduction and Embryology; 2014, Jun 29 – July 2 Munich, Germany. [AMH ELISA AL-124]

Chen Y, Pei H, Chang Y, Chen Y, Wang H, Xie H, Yao S. The impact of endometrioma and laparoscopic cystectomy on ovarian reserve and the exploration of related factors assessed by serum Anti-Mullerian Hormone: a prospective cohort study. Journal of Ovarian Research 2014 Nov; 7(1):108. [AMH ELISA AL-105]

Crawford S, Finkelstein J, Gold E, Greendale G, Harlow S, Joffe H, Kalra B, Kumar A, Martin D, Merillat S, Morrison A, Sluss P, Thurston R, Avis N. Predicting Onset of Menopausal Vasomotor Symptoms with Anti-Mullerian Hormone in the Study of Women's Health Across the Nation (SWAN) Presented at 98th Annual Endocrine Society Meeting; 2016 Apr 1-3; Boston, MA [picoAMH ELISA, AL-124].

Cui L, Qin Y, Gao X, Lu J, Geng L, Ding L, Qu Z, Zhang X, Chen Z. Anti-Mullerian Hormone: correlation with age and androgenic and metabolic factors in women from birth to postmenopause. Reproductive Endocrinology. 2016 Feb, 105(2):481-5. [AMH ELISA AL-105, picoAMH ELISA AL-124].

Dauber A, Munoz-Calvo MT, Barrios V, Domene HM, Kloverpris S, Serra-Juhe C, Desikan V, Pozo J, Muzumdar R, Martos-Moreno GA, Hawkins F, Jasper HG, Conover CA, Frystyk J, Yakar S, Hwa V, Chowen JA, Oxvig C, Rosenfeld RG, Perez-Jurado LA, Argente J. Mutations in pregnancy-associated plasma protein A2 cause short stature due to low IGF-I availability. EMBO Mol Med. 2016 Mar 31;8(4):363-74. [IGF-I ELISA AL-121; Bioactive IGF-I ELISA AL-122; IGFBP-3 ELISA AL-120; IGFBP-5 ELISA AL-127; PAPP-A2 AL-109]

Davidge-Pitts C, Escande CJ, Conover CA. Preferential expression of PAPPA in human preadipocytes from omental fat. Journal of Endocrinology (2014) 222, 87–97. [picoPAPP-A ELISA AL-101].

Davis S, Lahlou N, Bardsley M, Temple M, Kowal K, Ross J. Longitudinal Study of Boys with Klinefelter Syndrome Gives Evidence of Prepubertal Testis Defect. Abstract presented at 97th Annual Endocrine Society Meeting; 2015; Mar 5-8; San Diego, CA. [AMH ELISA AL-105]

Dean A, van den Driesche S, Wang Y, McKinnell C, Macpherson S, Eddie S, Kinnell H, Hurtado-Gonzalez P, Chambers T, Stevenson K, Wolfinger E, Hrabalkova L, Calarrao A, Bayne R, Hagen C, Mitchell R, Anderson R, Sharpe R. Analgesic exposure in pregnant rats affects fetal germ cell development with inter-generational reproductive consequences. Sci. Rep. 6, 19789, 2016 Jan 27 [picoAMH ELISA, AL-124].

Decanter C, Peigne M, Mailliez A, Morschhauser F, Dassonneville A, Dewailly D, Pigny P. Toward a better follow-up of ovarian recovery in young women after chemotherapy with a hypersensitive antimüllerian hormone assay. Fertility and Sterility. 2014 Aug; 102(2):483-7. [picoAMH ELISA AL-124]

Dumont A, Robin G, Catteau-Jonard, Dewailly D. Role of Anti-Müllerian Hormone in pathophysiology, diagnosis and treatment of Polycystic Ovary Syndrome: a review. Reproductive biology and Endocrinology. 2015 13:137. [AMH ELISA AL-105]

Eckersten D, Giwercman A, Bruun L, Christensson A. Anti-Mullerian Hormone, a sertoli cell-derived marker, is decreased in plasma of male patients in all stages of chronic kidney disease. Andrology. 2015 Nov; 3(6):1160-4. [AMH ELISA AL-105]

El Khoudary SR, Wang L, Brooks MM, Matthews KA, Thurston RC, Crawford S, Derby C, Jackson EA, Lee JS, Un-Yong Chae C, McConnell DS, Finkelstein J. Associations of Anti-Mullerian Hormone Premenopausal Levels and Their Changes over the Menopausal Transition with Lipids: The Study of Women' s Health Across the Nation (SWAN). Presented at 98th Annual Endocrine Society Meeting; 2016 Apr 1-3; Boston, MA [picoAMH ELISA, AL-124].

Findley AD, Siedhoff MT, Hobbs KA, Steege JF, Carey ET, McCall CA, Steiner AZ. Short-term effects of salpingectomy during laparoscopic hysterectomy on ovarian reserve: a pilot randomized controlled trial. Fertility and Sterility. 2013 Dec; 100(6):1704-8. [AMH ELISA AL-105]

Finkelstein JS, Lee H, Burnett-Bowie SAM, Santoro N, Yu EW, Joffe H, Morrison A, Kumar A, Greendale GA, Gold E, Harlow S, Lasley BL, Derby C, Randolph JF, Matthews KA, Kravitz HM, McConnell DS, Brooks MM, Martin D, Darakananda K, Hirsch SC, Sluss PM. Utility of Anti-Mullerian Hormone (AMH) for Predicting the Time to the Final Menstrual Period: The Study of Women's Health Across the Nation (SWAN). Presented at 98th Annual Endocrine Society Meeting; 2016 Apr 1-3; Boston, MA [picoAMH ELISA, AL-124]

Fleming R, Seifer DB, Frattarelli JL, Ruman J. Assessing ovarian response: antral follicle count versus anti-Müllerian hormone. Reproductive BioMedicine Online. 2015 epub ahead of print. [AMH ELISA AL-105]

Gruson D, Homsak E. Measurement of Anti-Mullerian Hormone Performance of a New UltraSensitive Immunoassay. Clin Biochem 2015 Apr; 48(6):453-5. [AMH ELISA AL-105]

Gruson D. Performance of a New Ultra-Sensitive Immunoassay for the Measurement of Anti-Müllerian Hormone. Poster session presented at: EuroMedLab; 2015 Oct 22-24; Paris, France. [AMH ELISA AL-105]

Gruson D. Performance of a New Ultra-Sensitive Immunoassay for the Measurement of Anti-Müllerian Hormone. Poster session presented at: Endocrine Society's 96th Annual Meeting; 2014; June 21-24; Chicago, IL. [AMH ELISA AL-105, Inhibin B ELISA AL-107]

Guerreiro BM, Batista EO, Vieira LM, Sá Filho MF, Rodrigues CA, Castro Netto A, Silveira CR, Bayeux BM, Dias EA, Monteiro FM, Accorsi M, Lopes RN, Baruselli PS. Plasma anti-mullerian hormone: an endocrine marker for in vitro embryo production from Bos taurus and Bos indicus donors. Domestic Animal Endocrinology. 2014 Oct; 49:96-104. [Bovine AMH ELISA AL-114]

Haltia UM, Hallamaa M, Tapper J, Hynninen J, AlLhan H, Ritvos O, Heikinheimo M, Unkila-Kallio L, Perheentupa A, Farkkila A. Diagnostic markers for patients with ovarian granulosa cell tumors; comparative analysis of CA125, HE4, Inhibin B, and AMH. Presented at 8th Ovarian Cancer Research; 2016 May 15-17; Niagra Falls, ON, Canada. [AMH ELISA, AL-105]

Heitzeneder S, Shem J, Khan J, Mackall C. Pregnancy Associated Plasma Protein A (PAPP-A) Is A Novel Therapeutic Target In Ewing Sarcoma. Presented at 8th Ovarian Cancer Research; 2016 May 15-17; Niagra Falls, ON, Canada. [picoPAPP-A ELISA AL-101; Bioactive IGF-I ELISA AL-122; Total IGFBP-4 ELISA AL-126; Intact IGFBP-4 ELISA AL-128].

Hoek J, van Houten E, Kramer P, McLuskey A, Karels B, Themmen A, Visser A. Analysis of the Metabolic Phenotype of Female Mice Lacking Anti-Mullerian Hormone Signaling. Poster session presented at the 96th Annual Endocrine Society Meeting; 2014 Jun 21-24; Chicago, IL. [Rat/Mouse AMH ELISA AL-113]

Hou J, Maas KH, Cook-Andersen H, Burt-Solorzano CM, Shayya R, Kumar A, Chang RJ. HCG-Stimulated 17OHP Responses and Basal Serum AMH Levels among Adolescent Women with Polycystic Ovary Syndrome. Poster session presented at: American Society for Reproductive Medicine; 2014 Oct 22; Honolulu, Hawaii. [AMH ELISA AL-105]

Ilha GF, Rovani MT, Gasperin BG, Ferreira R, de Macedo MP, Neto OA, Duggavathi R, Bordignon V, Gonçalves P. Regulation of Anti-Mullerian Hormone and Its Receptor Expression around Follicle Deviation in Cattle. Reprod Domest Anim. 2016 Apr;51(2):188-94. Epub 2016 Jan 27. [Bovine AMH ELISA, AL-114].

Iwase A, Nakamura T, Nakahara T, Goto M, Kikkawa F. Anti-Mullerian Hormone and Assessment of Ovarian Reserve After Ovarian Toxic Treatment, a Systematic Narrative Review. Reproductive Sciences. 2015 May, 22(5):519-26. [AMH ELISA AL-105, picoAMH ELISA AL-124].

Iwase A, Osuka S, Nakamura T, Kato N, Takikawa S, Goto M, Kikkawa. Usefulness of the Ultrasensitive Anti-Mullerian Hormone Assay for Predicting True Ovarian Reserve. Reproductive Sciences, 2015, 1-5. [picoAMH ELISA AL-124]

Joffe H, Crawford S, Bromberger JT, Kalra B, Kumar A, Morrison A, Finkelstein J, Kravitz JM. Vasomotor Symptoms Mediate the Association Between Anti-Mullerian Hormone Levels and New-Onset Sleep Disturbance in Women during the Menopause Transition: Study of Women's Health Across the Nation (SWAN). Presented at 98th Annual Endocrine Society Meeting; 2016 Apr 1-3; Boston, MA [picoAMH ELISA, AL-124].

Iwase A, Osuka S, Nakamura T, Kato N, Takikawa S, Goto M, Kikkawa. Usefulness of the Ultrasensitive Anti-Mullerian Hormone Assay for Predicting True Ovarian Reserve. Reproductive Sciences, 2015, 1-5. [picoAMH ELISA AL-124]

Joffe H, Crawford S, Bromberger JT, Kalra B, Kumar A, Morrison A, Finkelstein J, Kravitz JM. Vasomotor Symptoms Mediate the Association Between Anti-Mullerian Hormone Levels and New-Onset Sleep Disturbance in Women during the Menopause Transition: Study of Women's Health Across the Nation (SWAN). Presented at 98th Annual Endocrine Society Meeting; 2016 Apr 1-3; Boston, MA [picoAMH ELISA, AL-124].

Kalra B, Kumar A, Tran A, Oxvig C, Shah S. Development of a fully characterized picoPAPP-A chemiluminescence assay for male and female serum evaluation. Poster session presented at American Association for Clinical Chemistry; 2012 Jul 16-19; Los Angeles, CA. [picoPAPP-A CLIA AL-201]

Kalra B, Kumar A, Tran A, Oxvig C, Shah S. Development of a well characterized PAPP-A2 ELISA to measure PAPP-A2 in maternal biological fluids. Poster session presented at the 94th Annual Endocrine Society Meeting; 2012 Jun 23-26; Houston, TX. [PAPP-A2 ELISA AL-109]

Kalra B, Kumar A, Tran A, Oxvig C. Development of a well characterized PAPP-A2 chemiluminescence assay to measure PAPP-A2 in maternal biological fluids. Poster session presented at American Association for Clinical Chemistry; 2012 Jul 16-19; Los Angeles, CA. [PAPP-A2 CLIA AL-209]

Kalra B, Patel A, Kommareddy V, Ganapathy K, Mistry S, Budhavarapu V, Savjani G, Pasternack A, Ritvos O, Hyvonen M, Kumar A. Development of Novel Specific ELISAs for all Inhibins, Activins and their Binding Proteins FST and FSTL3. Poster presented at 98th Annual Endocrine Society Meeting; 2016 Apr 1-3; Boston, MA. [Activin A ELISA AL-110, Inhibin A ELISA AL-123, Inhibin B ELISA AL-107, Activin B ELISA AL-150, Activin AB ELISA AL-153, Follistatin ELISA AL-117, Follistatin Like 3 ELISA AL-152]

Kalra B, Patel A, Kommareddy V, Ganapathy K, Mistry S, Budhavarapu V, Savjani G,

Karlamangla AS, Shieh A, Burnett-Bowie SA, Yu EW, Greendale GA, Sluss PM, Martin D, Finkelstein JS. Anti-Mullerian Hormone and Prediction of Trans-Menopausal Bone Loss. Presented at 98th Annual Endocrine Society Meeting; 2016 Apr 1-3; Boston, MA [picoAMH ELISA, AL-124].

Karlamangla AS. Anti-Mullerian hormone may estimate magnitude of menopausal bone loss. 2016 April 1. Retrieved from http://www.healio.com/endocrinology/bone-mineral-metabolism/news/online/%7B4f8e49d7-e1e8-4567-bdca-dd7d018f7fea%7D/anti-mullerian-hormone-may-estimate-magnitude-of-menopausal-bone-loss . [picoAMH ELISA, AL-124].

Kavoussi SK, Odenwald KC, Boehnlein LM, Summers-Colquitt RB, Pool TB, Swain JE, Jones JM, Lindstrom MJ, Lebovic DI. Antimullerian hormone as a predictor of good-quality supernumerary blastocyst cryopreservation among women with levels<1 ng/mL versus 1–4 ng/mL. Fertility and Sterility. 2015 Sep; 104(3):633-636. [AMH ELISA AL-105]

Kim A, Ebbert K, Cordeiro MH, Romero M, Zhu J, Serna VA, Whelan KA, Woodruff TK, Kurita T. Cell Autonomous Phosphoinositide 3-Kinase Activation in Oocytes Disrupts Normal Ovarian Function Through Promoting Survival and Overgrowth of Ovarian Follicles. Endocrinology. 2015 Apr; 156(4): 1464–1476. [Inhibin A ELISA AL-123, Inhibin B ELISA AL-107].

Kloverpris S, Gaidamauskas E, Rasmussen LCV, Overgaard MT, Kronborg C, Knudsen UB, Christiansen M, Kumar A, Oxvig C. A robust immunoassay for pregnancy-associated plasma protein-A2 based on analysis of circulating antigen: Establishment of normal ranges in pregnancy. Mol. Hum. Reprod. first published online June 25, 2013. [PAPP-A2 ELISA AL-109]

Kumar A, Kalra B, Chowdavarapu K, Shah S, Savjani G, Oxvig C. Development of IGF-1 ELISA Assays to Measure Free and Total Circulating IGF-1. Poster session presented at the 96th Annual Endocrine Society Meeting; 2014 Jun 21-24; Chicago, IL. [Total IGF-I ELISA AL-121, Bioavailable IGF-I ELISA AL-122]

Kumar A, Kalra B, Kommareddy V, Chowdavarapu K, Mistry S, Savjani G, Oxvig C. Development of Well Characterized ELISAs for Bound and Unbound Insulin-Like Growth Factors and their Binding Proteins. Poster presented at 98th Annual Endocrine Society Meeting; 2016 Apr 1-3; Boston, MA. [IGF-I ELISA AL-121, Bioactive IGF-I ELISA AL-122, IGF-II ELISA AL-131, IGFBP-2 ELISA AL-140, Intact IGFBP-3 ELISA AL-149, Total IGFBP-3 ELISA AL-120, Total IGFBP-4 ELISA AL-126, Intact IGFBP-4 ELISA AL-128, IGFBP-5 ELISA AL-127]

Kumar A, Kalra B, Oxvig C. Development of a sensitive Dried Blood Spot Anti-Müllerian Hormone (AMH) ELISA. Poster session presented at American Association for Clinical Chemistry; 2014 Jul 27-31; Chicago, IL. [AMH DBS ELISA AL-129]

Kumar A, Kalra B, Patel A, Oxvig C. Development of a well characterized Total PAPP-A chemiluminescent assay for maternal serum evaluation. Poster session presented at the 94th Annual Endocrine Society Meeting; 2012 Jun 23-26; Houston, TX. [PAPP-A CLIA AC-206]

Kumar A, Kalra B, Patel A, Savjani G, Eklund E, Lambert-Messerlin G. Pre-analytical assessment of AMH stability in human serum using a well-characterized midpro-mature immunoassay. European Society for Human Reproduction and Embryology; 2014; Berlin, Germany. [AMH ELISA AL-105]

Kumar A, Kalra B, Patel A, Savjani G, Visser JA, Themmen AP, Torchen LC, Dunaif A. Novel Anti-Müllerian Hormone ELISAs: Help Diagnose Polycystic Ovary Syndrome*. Poster session presented at: American Association for Clinical Chemistry; 2015; Jul 31-Aug 4; Philadelphia, PA. [AMH ELISA AL-105]

Kumar A, Kalra B, Patel A, Shah S, Savjani G, Themmen A, Visser J, Pruysers, Robertson D. Development of Stable picoAnti-Müllerian Hormone ELISA: Sensitive, Reliable and Reproducible Results. Poster session presented at the 96th Annual Endocrine Society Meeting; 2014 Jun 21-24; Chicago, IL. [picoAMH ELISA AL-124].

Kumar A, Kalra B, Patel A, Shah S. Development of a Sensitive Inhibin B ELISA Optimized to Eliminate False Positive Results. Poster session presented at: American Association for Clinical Chemistry; 2013; Jul 30-Aug 1; Houston, TX. [Inhibin B ELISA AL-107]

Kumar A, Kalra B, Patel A, Shah S. Development of a Well Characterized Ultra-Sensitive Human Anti-Müllerian Hormone (AMH) ELISA. Poster session presented at: American Association for Clinical Chemistry; 2013; Jul 30-Aug 1; Houston, TX. [AMH ELISA AL-105]

Kumar A, Kalra B, Patel A, Shah S. New Sensitive Anti-Müllerian Hormone (AMH) ELISAs for Non-Human Primate, Rodent, Equine, Bovine, Canine and Other Species. Poster session presented at: American Association for Clinical Chemistry; 2013; Jul 30-Aug 1; Houston, TX. [Human/Primate AMH ELISA AL-105, Bovine AMH ELISA AL-114, Canine AMH ELISA AL-116, Equine and Ovine AMH ELISA AL-115, Rat and Mouse AMH ELISA AL-113]

Kumar A, Kalra B, Patel AS, Kumar T, Savjani G. Validation of Dried Blood Spot AMH ELISA: A Convenient Alternative to Venipuncture. Poster presented at 98th Annual Endocrine Society Meeting; 2016 Apr 1-3; Boston, MA. [AMH DBS ELISA AL-129]

Kumar A, Kalra B, Schanne A, Lechtenberg L, Gracia C. Bloodspot AMH may be used to assess the impact of cancer therapies on ovarian reserve. Poster session at American Society for Reproductive Medicine; 2015 Oct 17-21; Baltimore, Maryland [AMH DBS ELISA AL-129]

Lahlou N, Santullli P, Guibourdenche J, Beldjord C, Kottler, M, Chapron C, Gompel A. Unexpected Inhibin B, Insulin-like Peptide 3, and Testosterone Production by Mother Ovaries in a Pregnancy with Sustained High hCG Levels. A Clue to Hyperreactio Luteinalis ? Poster session presented at: Endocrine Society's 96th Annual Meeting; 2014; June 21-24; Chicago, IL. [AMH ELISA AL-105, Inhibin B ELISA AL-107, Inhibin A ELISA AL-123]

Lahoz B, Alabart JL, Cocero MJ, Monniaux D, Fabre S, Folch J. 352 The use of plasma anti-müllerian hormone in sheep as an endocrine marker of the ovarian response to follicle-stimulating hormone in multiple-ovulation embryo transfer programs. Reproduction, Fertility and Development. 2014 Dec; 27(1):264. [Equine and Ovine AMH ELISA, AL-115]

Lahoz B, Alabart JL, Sanchez P, Echegoyen E, Folch, J. Elección de las Mejores Ovejas Donantes de Embriones Mediante la Determinación Plasmática de su Amh (Hormona Anti-Mülleriana). XVI Jornadas sobre Producción Animal. 2015; Vol II: 447-9.

Lambert-Messerlian G, Plante B, Eklund E, Raker C, Moore R. Levels of antimullerian hormone in serum during the normal menstrual cycle. Fertility and Sterility. 2016 Jan, 105(1). [AMH ELISA AL-105]

LambertMesserlian G. "The New Egg Timer - AntiMullerian Hormone Levels for Assessing Ovarian Reserve". Clinical Laboratory News. Jan 2015:14-18. [AMH ELISA AL-105, picoAMH ELISA AL-124]

Liao Z, He W, Yin Q, Ji W, Zhang L, Li Y. Anti-Mullerian Hormone Level in Healthy Adult Women Using the Ultra-Sensitive Assay. Abstract presented at 97th Annual Endocrine Society Meeting; 2015; Mar 5-8; San Diego, CA. [AMH ELISA AL-105]

Liu DM, Torchen LC, Sung Y, Paparodis R, Legro RS, Grebe SK, Singh RJ, Taylor RL, Dunaif A. Evidence for gonadotrophin secretory and steroidogenic abnormalities in brothers ofwomenwith polycystic ovary syndrome. Human Reproduction, Vol.29, No.12 pp. 2764–2772, 2014 Oct 21. [Inhibin B ELISA, AL-107].

Lopes Dias Queiroz V. 2014: Anti-Mullerian Serum Hormone as a Predictor of Puberty in Young Nelore Bulls [dissertation]. [Mato Grosso (Brazil)]: Universidade Federal De Mato Grosso Do Sul. [Bovine AMH ELISA AL-114]

Lu J, Grenache D. Performance Evaluation of the AnshLite Myelin Basic Protein Chemiluminescent Immunoassay using Cerebrospinal Fluid. Poster session presented at American Association for Clinical Chemistry; 2014 Jul 27-31; Chicago, IL. [AnshLite MBP CLIA AL-208].

Lu J, Holt C, Choi M, Kalp K, Straseski J. Quantitation of Anti-Müllerian Hormone by the AnshLabs picoAMH ELISA Assay. Poster session presented at American Association for Clinical Chemistry; 2014 Jul 27-31; Chicago, IL. [picoAMH ELISA AL-124].

Lukaszuk K, Plociennik L, Lukaszuk A, Dialobrzeska D. The Heterogenity of Anti-Mullerian Hormone Depletion in Models Across Assays in 12917 Women. Poster session at American Society for Reproductive Medicine; 2015 Oct 17-21; Baltimore, Maryland [AMH ELISA AL-105]

Lukaszuk K, Pukszta S, Ochman K, Cybulska C, Liss J, Pastuszek E, Zabielska J, Woclawek-Potocka I. Healthy Baby Born to a Robertsonian Translocation Carrier following Next-Generation Sequencing-Based Preimplantation Genetic Diagnosis: A Case Report. AJP Rep. 2015 Oct;5(2):e172-5. Epub 2015 Jul 24. [AMH ELISA AL-105].

Mamsen LS, Petersen TS, Jeppesen JV, Mollgard K, Grondahl ML, Larsen A, Ernst E, Oxvig C, Kumar A, Kalra B, Andersen CY. Proteolytic processing of anti-Mullerian hormone differs between human fetal testes and adult ovaries. Molecular Human Reproduction, 2015 21 (7): 571-582. Epub ahead of print, April 18, 2015 [rec Human AMH AG-303-BA047]

Marsh EE, Bernardi LA, Steinberg ML, de Chavez PJ, Visser JA, Carnethon MR, Baird DD. Novel correlates between antimullerian hormone and menstrual cycle characteristics in African-American women (23–35 years-old). Fertil Steril. 2016 Apr 23. pii: S0015-0282(16)61100-7. Epub ahead of print. [AMH ELISA AL-105, picoAMH ELISA AL-124].

Mikkelsen JH1, Resch ZT, Kalra B, Savjani G, Kumar A, Conover CA, Oxvig C. Indirect targeting of IGF receptor signaling in vivo by substrate-selective inhibition of PAPP-A proteolytic activity. Oncotarget. 2014 Jan ; 5(4):1014-25. [PAPP-A ELISA AL-106]

Mont'Alverne AR. Reduction of ovarian reserve in patients with Takayasus arteritis. [Thesis]. [Sao Paulo (Brazil): University of Sao Paulo. [AMH ELISA AL-105].

Munnangi S, Gross S, Madankumar R, Salcedo G, Reznik S. Pregnancy associated plasma protein-A2: A novel biomarker for down syndrome. Placenta. 35 (2014): 900-906. [PAPP-A2 ELISA AL-109]

Myllarniemi M, Tikkanen J, Hulmi JJ, Pasternack A, Sutinen E, Ronty M, Lepparanta O, Ma H, Ritvos O, Koli K. Upregulation of activin-B and follistatin in pulmonary fibrosis – a translational study using human biopsies and a specific inhibitor in mouse fibrosis models. BMC Pulm Med. 2014 Nov 1;14:170. [Mouse monoclonal antibodies (mAbs) against human activin-A, activin-B and follistatin subunits (encoded by INHBA, INHBB and follistatin].

Nair S, Slaughter JC, Terry JG, Appiah D, Ebong I, Wang E, Siscovick DS, Sternfeld B, Schreiner PF, Lewis CE, Kabagambe EK, Wellons MF. Anti-mullerian hormone (AMH) is associated with natural menopause in a population-based sample: The CARDIA Women's Study. Mauritas. 2015 epub ahead of print. [AMH ELISA AL-105]

Nichols H, Baird D, Stanczyk F. Anti-Müllerian Hormone Concentrations in Premenopausal Women and Breast Cancer Risk. Cancer Prevention Research. 2015 April 14 epub ahead of print. [AMH ELISA AL-105, picoAMH ELISA AL-124]

Pankhurst MW, Leathart BL, Batchelor NJ, McLennan IS. The Anti-Müllerian Hormone Precursor (proAMH) Is Not Converted to the Receptor-Competent Form (AMHN,C) in the Circulating Blood of Mice. Endocrinology. 2016 Apr;157(4):1622-9. Epub 2016 Feb 1. [picoAMH ELISA, AL-124]

Pigny P, Gorisse E, Ghulam A, Robin G, Catteau-Jonard S, Duhamel A, Dewailly D. Comparative assessment of five serum antimüllerian hormone assays for the diagnosis of polycystic ovary syndrome. Fertility and Sterility. 2016 epub ahead of print [AMH ELISA AL-105]

Pigny P. Interets du dosage de l'AMH (Hormone Anti-Müllerienne)? 2014 October 17. Downloaded from http://biologiepathologie.chru-lille.fr/Flash_infos/flash_info_AMH.pdf [AMH ELISA AL-105].

Ribeiro ES, Bisinotto RS, Lima FS, Greco LF, Morrison A, Kumar A, Thatcher WW, Santos JE. Plasma anti-Müllerian hormone in adult dairy cows and associations with fertility. Journal of Dairy Science. 2014 Nov; 97(11):6888-900. [Bovine AMH CLIA AL-214]

Ribeiro ES, Cerri R, Bisinotto R, Lima F, Greco L, Morrison A, Kumar A, Thatcher W, Santos J. Associations Between Plasma Anti-Müllerian Hormone and Fertility Responses of Seasonally Calving Grazing Dairy Cows. Poster session presented at American Dairy Science Association; 2012; July 15-19; Phoenix, AZ. [Bovine AMH CLIA AL-214]

Robertson DM, Kumar A, Kalra B, Shah S, Pruysers E, Vanden Brink H, Chizen D, Visser JA, Themmen AP, Baerwald A. Detection of serum antimüllerian hormone in women approaching menopause using sensitive antimüllerian hormone enzyme-linked immunosorbent assays. Menopause. 2014 Dec; 21(12):1277-86. [AMH ELISA AL-105, picoAMH ELISA AL-124]

Rodriguez-Purata J, Luna M, Cervantes E, Lee J, Whitehouse M, Copperman A, Bandler B. Very Low Levels of Anti-Mullerian Hormone (AMH) in a Large Cohort of ART Patients. Poster session at American Society for Reproductive Medicine; 2015 Oct 17-21; Baltimore, Maryland [picoAMH ELISA AL-124]

Seidler EA, Rhee JS, Eklund E, Lambert-Messerlian G, Cooper AR. Like mother, like daughter? A comparison of anti-mullerian hormone levels in sample pairs of maternal serum and female neonatal cord blood. Fertility and Sterility. 2014; 102(3):e35-e36. [AMH ELISA AL-105]

Sequeira M, Guillen S, Meikle A, Viñoles C. 2014. Relación entre la máxima cuenta folicular, las concentraciones de hormona antimülleriana y la concepción en vaquillonas Hereford. Poster session presented at Proceedings del 2do Congreso de la Sociedad Argentina de Tecnologías Embrionari a Arbitrado; 2014; May26-27; Buenos Aires, Argentina. [Bovine AMH ELISA AL-114]

Skory R, Xu Y, Shea L, Woodruff T. Engineering the ovarian cycle using in vitro follicle culture. Human Reproduction 2015 Mar 16 Epub ahead of print. [Activin A ELISA AL-110]

Smartt JA. Anti-Mullerian Hormone: Potential Association with Fertility in Ewes. [Thesis]. [San Angelo (TX)]: San Angelo University. [Equine and Ovine AMH ELISA, AL-115].

Stojsin A, Sovernigo T, Filho M, Gillis D, Adona P, Miranda M, Ohashi O, Neal M, Madan P, King A. Plasma anti-müllerian hormone predicts bovine ovary size, number of antral follicles, and overall animal fertility in three breeds of cattle. Poster session presented at Ovarian Club III; 2013 Nov; Paris France. [Bovine AMH ELISA AL-114]

Straseski J, Lu J, Holt C, Choi M, Kalp K. Analytical Evaluation of the Ansh Labs picoAMH ELISA assay for Anti-Mullerian Hormone. Poster session presented at the 96th Annual Endocrine Society Meeting; 2014 Jun 21-24; Chicago, IL. [picoAMH ELISA AL-124]

Su HI, Sammel MD, Homer MV, Bui K, Haunschild C, Stanczyk FZ. Comparability of antimüllerian hormone levels among commercially available immunoassays. Fertility and Sterility. 2014 Jun; 101(6):1766-72.e1. [AMH ELISA AL-105, picoAMH ELISA AL-124]

Torchen L, Kumar A, Kalra B, Savjani G, Sisk R, Legro R, Dunaif A. Brothers and Fathers of Women with PCOS Have Altered Testicular Function. Poster session presented at: Endocrine Society's 96th Annual Meeting; 2014; June 21-24; Chicago, IL. [AMH ELISA AL-105, Inhibin B ELISA AL-107]

Vales C, Recavarren M, Ranochia R, Bianchi C, De La Mata A, De La Mata J, Alberio RH. Determinación de la hormona antimulleriana (AMH) en plasma de vacas superovuladas como predictora de la respuesta. Poster session presented at 2° Congreso de Sociedad Argentina de Tecnologías Embrionarias; 2014; May 28-31; Buenos Aires, AR. [Bovine AMH ELISA AL-114]

Van Houten E, Kevenaar M, Louwers Y, van Dorp W, Themmen A, laven J, visser, J. Serum Anti-Müllerian Hormone Levels Are Negatively Associated with Risk Factors of the Metabolic Syndrome in Women with Polycystic Ovary Syndrome. Poster session presented at: Endocrine Society's 96th Annual Meeting; 2014; June 21-24; Chicago, IL. [AMH ELISA AL-105]

Visser J, Laven J, McLuskey A, Louwers Y, van Dorp W, Themmen A, Kalra B, Patel A, Kumar A. Development of a Well Characterized Ultra-Sensitive Human Anti-Mullerian Hormone Chemiluminescence Assay: Evaluation of Potential Clinical Applications. Poster session presented at 95th Annual Endocrine Society Meeting; 2013; Jun 15-18; San Diego, CA. [AMH CLIA AL-205]

Welsh P, Smith K, Nelson SM. A single-centre evaluation of two new Anti-Mullerian Hormone assays and comparison with the current clinical standard assay. Human Reproduction. 2014 May; 29(5):1035-41. [AMH ELISA AL-105, picoAMH ELISA-124]

White A, Sandler D, D'Aloisio A, Stanczyk F, Whitworth K, Baird D, Nichols H. Anti-Mullerian hormone (AMH) in relation to tobacco and marijuana use and sources of indoor heating/cooking. Fertility and Sterility. First published online May 27, 2016. [AMH ELISA AL-105, picoAMH ELISA AL-124]

Xiao S, Zhang J, Romero M, Smith K, Shea L, Woodruff T. In vitro follicle growth supports human oocyte meiotic maturation. Scientific Reports 5, Article number: 17323. Published online: 2015 November 27. [AMH ELISA AL-105].

Yilmaz O, Toydemir T, Kirsan I, Ucmak Z, Karacam E. Anti-Mullerian hormone as a diagnostic tool for ovarian remnant syndrome in bitches. Vet Res Commun. First published online June 24, 2015. [Canine AMH ELISA AL-116]

Ziwei X, Jian H, Xinyu C, Wei Y, Gang L. Clinical value of serum anti-mullerian hormone in diagnosis of polycystic ovarian syndrome (in Chinese). 2015. Retrieved from http://www.j-fzyx.com [AMH ELISA AL-105]

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Index by Catalog Number

* Within the U.S., intended for Research Use Only (RUO). Not for use in diagnostic or therapeutic procedures.

Notes

Notes

ISO 13485:2003

Ansh Labs follows guidelines of the U.S. FDA Good Manufacturing Practice (cGMP) 21 CFR 820, CMDR - Quality System, IVD Directive 98/79/EC as well as ISO 13485 International Standards.

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