

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 finding:

- 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.

Immunoassays		Rattus	Murine	Primate	Porcine	Ovine	Caprine	Bovine	Equine	Canine	Feline	Other
Activin A	ELISA, AL-110		R									
Activin AB	ELISA, AL-150		V			V	V		V	V		Rabbit
Activin B	ELISA, AL-150		V			V	V	V	V	V		Fish, Rabbit
Activin B, Mouse	ELISA, AL-156		V									
AMH	ELISA, AL-105			V								Hamster, Rhesus, Cynomolgus, Vervet, Squirrel Monkey
AMH	CLIA, AL-205			V								
AMH (pico)	ELISA, AL-124			V								
AMH (Blood Spot)	ELISA, AL-129			V								
AMH, Bovine	ELISA, AL-114							V, P, R				
AMH, Canine	ELISA, AL-116									V, P	V	
AMH, Caprine	ELISA, AL-154						V	V				
AMH, Equine	ELISA, AL-115								V			White Rhino, Bottlenose Dolphin
AMH, Ovine	ELISA, AL-155					V				V		
AMH, Porcine	ELISA, AL-169				V							
AMH, Rat/Mouse	ELISA, AL-113	V, P	V, P		V							
C-Peptide of Insulin	ELISA, AL-151						V	V		V		Rabbit
Follistatin	ELISA, AL-117								V			
Glucagon	ELISA, AL-157		V									
IGF-1 (Total), Rat/Mouse	ELISA, AL-137	V	V									
IGF-1 (Free), Rat/Mouse	ELISA, AL-136	V	V									
IGFBP-3 (Intact)	ELISA, AL-149		V				V	V				Rabbit
IGFBP-4 (Total)	ELISA, AL-126	V					V	V	V			
IGFBP-4 (Intact)	ELISA, AL-128	V					V	V	V			
IGFBP-5	ELISA, AL-127						V	V	V			
Inhibin A	ELISA, AL-123		P									
Inhibin A (Multi-Species)	ELISA, AL-161		V					V	V	V		
Inhibin B	ELISA, AL-107		V, P					V	V	V		
Inhibin B (Multi-Species)	ELISA, AL-163		V					V	V	V		
Myelin Basic Protein	ELISA, AL-108			R								
Oxytomodulin	ELISA, AL-139		V	V		V	V	V	V	V		Rabbit, Squirrel
PAPP-A, Mouse	ELISA, AL-158		V			V	V	V	V	V		Rabbit

**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.



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

# Validating Immunoassays

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 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 the "Resources" link on our website for the guide "Assay Validation for Animals". It can also be accessed directly at <http://www.anshlabs.com/assay-validation-for-animals/>.

## Bovine Testing

Anti-Müllerian Hormone (AMH) is a protein hormone produced by granulosa cells in ovarian follicles. AMH can be measured any time in the estrous cycle and is a direct measure of ovarian reserve and has a high correlation to Antral Follicle Count.

In Bovine or other production animals, measuring AMH will:

- Allow the selection of the best heifers that will produce the highest number of transferable embryos
- Identify high producing embryo transfer donors before a superovulation regimen
- Help monitor the fertility stayability potential of cows
- Identify cows with higher first-conception service rates and fewer service requirements

The Bovine AMH immunoassay has been validated and published in the breeds listed to the right.

### Breeds Tested:

#### Bos taurus (fullblood)

- Jersey
- Hereford
- Holstein
- Angus
- Red Angus
- Black Angus

#### Bos indicus (fullblood)

- Brahman
- Gyr
- Nelore

#### Bubalus bubalis (fullblood)

- Murrah

#### Mixed (composite)

- Beefmaster
- Brangus
- Holstein-Jersey
- Braford
- Bonsmara
- Wagyu

Additionally, we have many proteins and monoclonal antibodies useful for staining for numerous species.

Call us today or visit [AnshLabs.com](http://AnshLabs.com) to see what's new in our lab.



ISO 13485:2016

Ansh Labs is ISO 13485 certified for design, development, manufacturing, services and distribution of reagents/ immunoassay kits for research and *in vitro* diagnostic applications.

## Product Listing\*

### TGF-Beta Superfamily

- Activin A
- Activin B
- Activin AB (in development)
- AMH
- AMH, Dried Blood Spot
- picoAMH
- BMP-15 (in development)
- Glycosylated Fibronectin
- Follistatin
- Follistatin Like 3
- GDF-9 (in development)
- Inhibin A
- Inhibin B
- Total Inhibin
- BMP-15/GDF-9 Heterodimer Complex (in development)

### Glucagon Regulation

- C-Peptide of Insulin
- GLP-1
- GLP-2 (in development)
- Glucagon
- Oxyntomodulin

### Pappalysins Family

- PAPP-A
- picoPAPP-A
- PAPP-A / Stanniocalcin 2 Complex
- PAPP-A2

### Growth Factors

- Bioactive IGF-I
- Total IGF-I
- IGF-II
- IGFBP-2
- Intact IGFBP-3
- Total IGFBP-3
- Intact IGFBP-4
- Total IGFBP-4
- IGFBP-5
- Stanniocalcin 2

### Specialty Controls

- Ansh/Check AMH Tri-Level Controls
- Ansh/Check Inhibin B Tri-Level Controls

### Species Specific Assays

- Activin B - Mouse
- AMH - Bovine, Canine, Caprine, Equine, Mouse, Ovine, Porcine, Rat
- IGF-I (Total) - Rat and Mouse
- IGF-I (Bioactive) - Mouse, Rat
- Inhibin A - Canine, Equine, Rodent
- Inhibin B - Canine, Equine, Rodent
- PAPP-A - Mouse

### Neuronal Disorders

- MBP

\* Unless otherwise stated in our catalog or other product documentation, these kits are intended for research use only and not for *in vitro* diagnostic purposes or therapeutic uses



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