

# Activin B

Enzyme-Linked Immunoassay Kit



**Introduction:** 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- $\beta$  family, signals through the ActRII receptor (Activin Receptor type II). Human Activin B is a 25.6 kDa disulfide-linked homodimer consisting of two  $\beta$ B 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.

## ANSH LABS ADVANTAGES

### Accurate

Known amounts of Activin B were added to serum and Li-Hep samples containing different levels of endogenous Activin B. The concentration of Activin B was determined before and after the addition of exogenous Activin B and the percent recovery was calculated.

Sample	Endogenous Conc. (pg/mL)	Expected Conc. (pg/mL)	Observed Conc. (pg/mL)	% Recovery
1	67.53	97.75	96.28	98%
		107.83	105.64	98%
2	80.31	77.22	81.16	105%
		76.19	77.75	102%
3	98.19	90.63	92.02	102%
		88.11	88.61	101%
4	88.61	88.51	88.40	100%
		88.47	99.05	112%
5	140.53	266.47	255.85	96%
		329.45	306.38	93%
		392.42	362.25	92%
6	153.28	277.95	265.19	95%
		340.29	322.52	95%
		402.62	383.09	95%

### Specific

This monoclonal antibody pair used in the assay detects Activin B. Other related molecules at the concentration in the table did not show any significant cross-reactivity. This monoclonal antibody pair recognizes other species such as Rabbit, Goat, Mouse, Bovine, Canine, Equine Porcine, and Fish.

#### Specific to Total Activin B

Does not cross-react with Activin A or Inhibin B, negligible reactivity to Activin AB.

#### Analytical measurable range of approximately 12-2600 pg/mL

Wide dynamic range for detection of total Activin B in studies of a variety of physiological states.

#### Sensitive to 4.35 pg/mL

#### Kit includes all reagents needed to run a 96-well plate, shipped at ambient temperatures and stored at 2-8°C

No need to buy or make additional reagents.

#### Long shelf-life

24 months from the date of manufacture; minimizing assay lot changes for long term studies.

Sample No.	Cross-reactant	Concentration (ng/mL)	% Cross-reactivity
1	Activin A	10 ng/mL	ND
2	Activin B (Ansh)	2 ng/mL	100%
3	Activin B (RD)	2 ng/mL	59%
4	Activin AB	5 ng/mL	3.9%
5	Inhibin A	5 ng/mL	ND
6	Inhibin B WHO (96/784)	5 ng/mL	ND

# Activin B

## Product Listing

Activin B is a useful research tool in studies related to:

- FSH stimulation
- Wound healing
- Immune response
- CNS development
- Bone morphogenesis
- Reproductive Development
- Granulosa cell tumors
- Ovarian Cancer
- Acute respiratory failure

## ELISA 96 Wells

Method	Quantitative 3-step sandwich type immunoassay
Incubation Time	Total 3.5 hour incubation at room temperature
Approximate Dynamic Range	6 points, 12-2600 pg/mL
Sensitivity	4.35 pg/mL
Sample Size / Type	25 µL / Serum, Plasma
Shelf-life	24 months
Catalog Number	AL-150

## Related Assays

Mouse Activin B	96-Well ELISA	AL-156
Activin A	96-Well ELISA	AL-110 [CE]
Activin AB	96-Well ELISA	AL-153
Follistatin	96-Well ELISA	AL-117
Follistatin Like 3	96-Well ELISA	AL-152

\*Unless otherwise stated here, 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.

POS.150.1224.USINTL

### Reproductive Function

Activin A [CE]  
Activin B  
Activin AB  
AFP  
AMH [CE]  
AMH, Dried Blood Spot [CE]  
AMH (PCOCheck™) [CE]  
picoAMH (MenoCheck®) [FDA, CE]  
BMP-15  
Estriol [FDA, CE]  
Follistatin  
Follistatin Like-3  
FSH  
FSH, Dried Blood Spot  
GDF-9  
GDF-9/BMP-15 Complex  
GDF-15, Total  
GDF-15, H-Specific  
Inhibin, Total  
Inhibin A [FDA, CE]  
picoInhibin A  
Inhibin A (OMQCheck™)  
Inhibin B [CE]  
Inhibin B, Ultra-Sensitive [CE]  
LH  
LH, Dried Blood Spot  
PAPP-A [CE]  
PAPP-A2 [CE]  
picoPAPP-A [CE]  
PLGF [CE]  
Prolactin [FDA, CE]  
Prolactin, Dried Blood Spot [CE]

### Specialty Controls

AnshCheck AMH Tri-Level Controls [FDA, CE]  
AnshCheck Inhibin B Tri-Level Controls  
AnshCheck Maternal Screening Bi-Level Controls [FDA, CE]

### Metabolism

C-Peptide of Insulin  
GIP, Intact  
GIP, Total  
Glicentin  
GLP-1  
GLP-2  
Glucagon [FDA, CE]  
Major Proglucagon Fragment  
Oxyntomodulin  
Proglucagon

### Growth Factors

IGF-I, Free  
IGF-I, Total [FDA, CE]  
IGF-II  
IGFBP-2  
IGFBP-3, Intact  
IGFBP-3, Total  
IGFBP-4, Intact  
IGFBP-4, Total  
IGFBP-5  
picoIL-6  
Stanniocalcin 2

### Species Specific Assays

Activin B: Mouse, Rat  
AMH: Bovine, Canine, Equine, Feline, Mouse, Ovine, Porcine, Primate, Rat  
GDF-15: Bovine  
IGF-I, Free: Mouse, Rat  
IGF-I, Total: Mouse, Rat  
IGFBP-4, Intact: Mouse, Rat  
IGFBP-4, Total: Mouse, Rat  
Inhibin A: Canine, Equine, Rodent  
Inhibin B: Canine, Equine, Mouse  
Oxyntomodulin: Mouse, Rat  
PAPP-A: Mouse

### Neuronal Disorders

MBP

\*\*Unless stated otherwise, products are for research use only.

### Customer Relations

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ISO 13485:2016

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