

Activin A

Enzyme-Linked Immunoassay Kit



Introduction: Activin A is a TGF-beta superfamily 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-beta 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 natural binding proteins of Activin A. Exogenous FST/FSTL3 do not interfere with Activin A determinations. Activin signaling also has been studied as an emerging target for therapeutics.

Activin A is a useful research tool in reproductive function and inflammation. We offer an expanding menu of the most specific and sensitive assays available for Activin and other key factors that have important physiological roles in folliculogenesis.

ANSH LABS ADVANTAGES

Accurate

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

Sample	Dilution Factor	Expected Conc. (ng/mL)	Observed Conc. (ng/mL)	% Recovery
1	Neat	4.242	NA	NA
	1:2	2.121	2.160	102%
	1:4	1.061	1.170	110%
	1:8	0.530	0.581	110%
2	Neat	1.282	NA	NA
	1:2	0.641	0.656	102%
	1:4	0.321	0.311	97%
	1:8	0.160	0.160	100%
3	Neat	1.842	NA	NA
	1:2	0.921	0.893	97%
	1:4	0.461	0.420	91%
4	Neat	1.243	NA	NA
	1:2	0.622	0.604	97%
	1:4	0.311	0.284	91%

Specific

The antibody pair used in the Activin A ELISA measures total Activin A and the analyte recovery is not inhibited by the addition of Follistatin 288 or 315. Other related molecules at indicated concentrations did not show any significant cross reaction.

Specific to Total Activin A

No detectable impact by the addition of follistatin.

Sensitive to 0.065 ng/mL

Detection at low concentrations for studies of compromised gonadal function.

Analytical measurable range of approximately 0.10—10 ng/mL

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

Calibration is traceable to the current NIBSC/WHO reference reagent (91/626)

Ensure accuracy and reproducibility assay-to-assay and lot-to-lot.

Sample Name	Concentration	% Cross-reactivity
Inhibin A	100 ng/mL	0.2
Inhibin B	100 ng/mL	ND
Activin B	50 ng/mL	ND
Activin AB	50 ng/mL	2.28
Alpha-2-M	100 ng/mL	ND
Activin-Follistatin Complex	10 ng/mL	100

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Product Listing

Activin A is a useful research tool for studies in Reproductive Endocrinology related to:

- Wound repair
- Pregnancy
- Spermatogenesis
- Regulation of LH activity in the ovary and testis
- Paracrine activity of the ovary related to FSH binding
- Endocrine activity of the ovary leading to stimulation of FSH
- Regulation of tissue morphogenesis
- Mitogen of fibroblast growth and activity

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, 0.1-10 ng/mL
Sensitivity	0.065 ng/mL
Sample Size / Type	25 µL Serum
Shelf-life	24 months
Catalog Number	AL-110 [CE]

Related Assays

Activin B	96-Well ELISA	AL-150
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.

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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.

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ISO 13485:2016

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