

Follistatin

Enzyme-Linked Immunoassay Kit



Introduction: Follistatin (FST) is a glycosylated single-chain protein that is expressed in a wide variety of tissues. Activin stimulates pituitary FSH secretion whereas inhibin and follistatin are inhibitory. Follistatin has been shown to be a potent activin-binding protein which acts by neutralizing the actions of the activins. 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. Alternative splicing occurs at the 3'-terminal of the gene resulting in a precursor form of 317 and 344 amino acids, 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).

Follistatin-288 is the predominant form present in human follicular fluid; whereas the main form in serum is Follistatin-315. Follistatin-288 has a greater capacity to bind and neutralize activin and is approximately 10-fold more potent than Follistatin-315 in suppressing FSH secretion from rat pituitary cells in vitro. In addition, Follistatin-288 also binds with much greater affinity to heparin sulfate proteoglycans located on the cell surface and extracellular matrix, indicating that the Follistatin-288 isoform is primarily a membrane-bound form of follistatin, whereas Follistatin-315 is a circulating form.

ANSH LABS ADVANTAGES

Accurate

The concentration of Follistatin was determined before and after the addition of exogenous Follistatin and the percent recovery was calculated.

Sample Name	% Cross-reactivity
Inhibin A	ND
Inhibin B	ND
Activin A	ND
Activin B	ND
Activin AB	ND
Alpha-2-Macroglobulin	ND
Myostatin	ND
AMH	ND
FSTL-3	ND

Specific

The antibody pair detects Human and Equine Follistatin in the assay. Other related analytes at the concentration in the table below did not show any cross-reactivity.

Specific to FOLLISTATIN

Does not show any cross-reactivity to Inhibin A, Inhibin B, Activin A, Activin B, Activin AB, Alpha-2-Macroglobulin, Myostatin, AMH, FSTL-3.

Analytical measurable range of approximately 0.625-20 ng/mL

Wide dynamic range for detection of Follistatin in a variety of physiological states.

Sensitive to 0.18 ng/mL

Long shelf-life

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

Sample	Endogenous Conc. (ng/mL)	Expected Conc. (ng/mL)	Observed Conc. (ng/mL)	% Recovery
1	1.45	1.73	1.64	95
		1.64	1.57	96
		1.56	1.40	90
2	2.88	2.44	2.28	93
		2.59	2.34	90
		2.71	2.56	95
3	2.88	11.26	12.00	107
		8.47	8.56	101
		6.23	6.64	107
4	1.41	10.53	11.42	108
		7.49	7.82	104
		5.06	5.03	99

Follistatin

Product Listing

Follistatin is a useful research tool in studies related to:

- Inflammatory responses from injury or pathogenic incursion
- Embryo development
- Folliculogenesis
- Muscle growth regulation
- PCOS

ELISA 96 Wells

Method	Quantitative 3-step sandwich type immunoassay
Incubation Time	Total 3 hour incubation at room temperature
Approximate Dynamic Range	7 points, 0.625-20 ng/mL
Sensitivity	0.18 ng/mL
Sample Size / Type	50 µL / Serum
Shelf-life	24 months
Catalog Number	AL-117

Related Assays

Follistatin Like 3	96-Well ELISA	AL-152
Activin A	96-Well ELISA	AL-110 [CE]
Activin AB	96-Well ELISA	AL-153
Activin B	96-Well ELISA	AL-150

*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
 Estrinol [FDA, CE]
 Follistatin
 Follistatin Like-3 (FSTL-3)
 FSH [FDA]
 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 [FDA]
 LH, Dried Blood Spot
 PAPP-A2 [CE]
 picoPAPP-A [CE]
 PLGF [CE]
 Prolactin [FDA, CE]
 Prolactin, Dried Blood Spot [CE]
 Testosterone

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
 Glicentin
 GLP-1
 GLP-2
 Glucagon [FDA, CE]
 Major Proglucagon Fragment (MPGF)
 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
 picolL-6
 Stanniocalcin 2

Species Specific Assays

Activin B - Mouse
 AMH - Bovine, Canine, Equine, Mouse, Ovine, Porcine, Rat
 IGF-I, Free - Mouse, Rat
 IGF-I, Total - Mouse, Rat
 Inhibin A - Canine, Equine, Rodent
 Inhibin B - Canine, Equine, Rodent
 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

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