

Follistatin Antibody

Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP51216

Product Information

Application	WB, IP, IHC-P
Primary Accession	P19883
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Calculated MW	38007

Additional Information

Gene ID	10468
Other Names	Follistatin, FS, Activin-binding protein, FST
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human Follistatin. The exact sequence is proprietary.
Dilution	WB~~1:1000 IP~~N/A IHC-P~~N/A
Format	0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	FST (HGNC:3971)
Function	Multifunctional regulatory protein whose primary function is to antagonize members of the transforming growth factor beta (TGF-beta) superfamily including activin, myostatin, GDF11 or bone morphogenetic proteins (BMPs) (PubMed: 11279126 , PubMed: 16482217 , PubMed: 18535106). Mechanistically, binds to these ligands in the extracellular space, blocking their type II receptor-binding site to inhibit downstream signaling (PubMed: 16482217). Plays an essential role in muscle fiber formation and growth both by preventing the repressive effects of myostatin and through SMAD3/AKT/mTOR signaling independently of myostatin (By similarity). Also promotes neural differentiation by antagonizing the action BMP4 (By similarity). Acts as a specific inhibitor of the biosynthesis and secretion of pituitary follicle stimulating hormone (FSH) by sequestering activin A/INHBA (PubMed: 11279126). On the other hand, translocates into the nucleus where it down-regulates rRNA synthesis and ribosome biogenesis to maintain cellular energy homeostasis by binding to rDNA.

Cellular Location	Secreted. Nucleus, nucleolus
Tissue Location	Isoform 1 is the predominant isoform in serum but is undetectable in follicular fluid. In the embryo, strong expression is seen in the palatal epithelia, including the medial edge epithelial and midline epithelial seam of the palatal shelves. Less pronounced expression is also seen throughout the palatal shelf and tongue mesenchyme (PubMed:31215115).

Background

Binds directly to activin and functions as an activin antagonist. Specific inhibitor of the biosynthesis and secretion of pituitary follicle stimulating hormone (FSH).

References

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Goshima N.,et al.Nat. Methods 5:1011-1017(2008).
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Zhang Z.,et al.Protein Sci. 13:2819-2824(2004).
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