

Follistatin Polyclonal Antibody

Catalog # AP69918

### Specification

# Follistatin Polyclonal Antibody - Product Information

Application Primary Accession Reactivity Host Clonality WB, IHC-P <u>P19883</u> Human, Mouse, Rat Rabbit Polyclonal

### Follistatin Polyclonal Antibody - Additional Information

Gene ID 10468

Other Names FST; Follistatin; FS; Activin-binding protein

Dilution WB~~Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. ELISA: 1/5000. Not yet tested in other applications. IHC-P~~N/A

**Format** Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.09% (W/V) sodium azide.

**Storage Conditions** -20°C

# Follistatin Polyclonal Antibody - 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:<a

href="http://www.uniprot.org/citations/11279126" target="\_blank">11279126</a>, PubMed:<a href="http://www.uniprot.org/citations/16482217" target="\_blank">16482217</a>, PubMed:<a href="http://www.uniprot.org/citations/18535106" target="\_blank">18535106</a>). Mechanistically, binds to these ligands in the extracellular space, blocking their type II receptor-binding site to inhibit downstream signaling (PubMed:<a

href="http://www.uniprot.org/citations/16482217" target="\_blank">16482217</a>). 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:<a href="http://www.uniprot.org/citations/11279126">http://www.uniprot.org/citations/11279126</a>"



target="\_blank">11279126</a>). 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

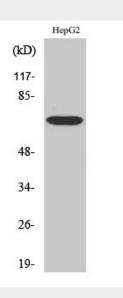
Isoform 1 is the predominant isoform in serum but is undetectable in follicular fluid. In the embryo, strong expression is seen in the palatal epithelia, including the medial edge epithelial and midline epithelial seam of the palatal shelves. Less pronounced expression is also seen throughout the palatal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

### **Follistatin Polyclonal Antibody - Protocols**

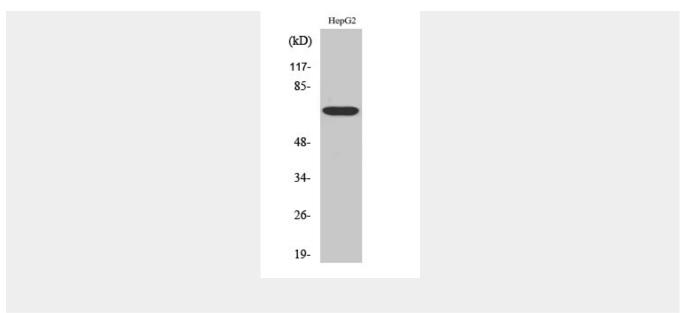
Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

### Follistatin Polyclonal Antibody - Images







# Follistatin Polyclonal Antibody - Background

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