

SUFU antibody - N-terminal region

Rabbit Polyclonal Antibody

Catalog # AI10454

Product Information

Application	WB
Primary Accession	Q9UMX1
Other Accession	NM_016169 , NP_057253
Reactivity	Human, Mouse, Rat, Zebrafish, Pig, Dog, Bovine
Predicted	Human, Mouse, Rat, Zebrafish, Pig, Chicken, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	53947

Additional Information

Gene ID	51684
Alias Symbol	PRO1280, SUFUH, SUFUXL
Other Names	Suppressor of fused homolog, SUFUH, SUFU
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-SUFU antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	SUFU antibody - N-terminal region is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SUFU {ECO:0000303 PubMed:12068298, ECO:0000312 HGNC:HGNC:16466}
Function	Negative regulator in the hedgehog/smoothened signaling pathway (PubMed: 10559945 , PubMed: 10564661 , PubMed: 10806483 , PubMed: 12068298 , PubMed: 12975309 , PubMed: 15367681 , PubMed: 22365972 , PubMed: 24217340 , PubMed: 24311597 , PubMed: 27234298 , PubMed: 28965847). Down-regulates GLI1-mediated transactivation of target genes (PubMed: 15367681 , PubMed: 24217340 , PubMed: 24311597). Down-regulates GLI2-mediated transactivation of target genes (PubMed: 24217340 , PubMed: 24311597). Part of a corepressor complex that acts on DNA-bound GLI1. May also act by linking GLI1 to BTRC and thereby targeting GLI1 to degradation by the proteasome (PubMed: 10559945 , PubMed: 10564661 , PubMed: 10806483 , PubMed: 24217340). Sequesters GLI1,

GLI2 and GLI3 in the cytoplasm, this effect is overcome by binding of STK36 to both SUFU and a GLI protein (PubMed:[10559945](#), PubMed:[10564661](#), PubMed:[10806483](#), PubMed:[24217340](#)). Negative regulator of beta-catenin signaling (By similarity). Regulates the formation of either the repressor form (GLI3R) or the activator form (GLI3A) of the full-length form of GLI3 (GLI3FL) (PubMed:[24311597](#), PubMed:[28965847](#)). GLI3FL is complexed with SUFU in the cytoplasm and is maintained in a neutral state (PubMed:[24311597](#), PubMed:[28965847](#)). Without the Hh signal, the SUFU- GLI3 complex is recruited to cilia, leading to the efficient processing of GLI3FL into GLI3R (PubMed:[24311597](#), PubMed:[28965847](#)). When Hh signaling is initiated, SUFU dissociates from GLI3FL and the latter translocates to the nucleus, where it is phosphorylated, destabilized, and converted to a transcriptional activator (GLI3A) (PubMed:[24311597](#), PubMed:[28965847](#)). Required for normal embryonic development (By similarity). Required for the proper formation of hair follicles and the control of epidermal differentiation (By similarity).

Cellular Location

Cytoplasm. Nucleus

Tissue Location

Ubiquitous in adult tissues. Detected in osteoblasts of the perichondrium in the developing limb of 12-week old embryos. Isoform 1 is detected in fetal brain, lung, kidney and testis Isoform 2 is detected in fetal testis, and at much lower levels in fetal brain, lung and kidney.

References

Lee,D.Y., (2007) Proc. Natl. Acad. Sci. U.S.A. 104 (51), 20350-20355 Reconstitution and Storage:For short term use, store at 2-8C up to 1 week. For long term storage, store at -20C in small aliquots to prevent freeze-thaw cycles.

Images



WB Suggested Anti-SUFU Antibody Titration: .2-1 ug/ml
ELISA Titer: 1:125
Positive Control: HepG2 cell lysate

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.