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Rabbit Anti-SUFU/Suppressor of Fused antibody

SL11209R

Product Name:	SUFU/Suppressor of Fused
Chinese Name:	抑制Hh信号通路蛋白SUFU抗体
Alias:	SU FU; SU(F)U; Su(fu); SUFU; SUFU_HUMAN; SUFUH; SUFUXL; Suppressor of fused homolog (Drosophila); Suppressor of fused homolog; OTTHUMP00000020374; OTTHUMP00000020377; OTTHUMP00000020379; PRO1280.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Horse,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	53, 106kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human SUFU:433-485/484
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	SUFU is a key negative regulator in the vertebrate Hedgehog signaling pathway. SUFU interacts with genes encoding proteins in this signal transduction pathway. In Drosophila, Intracellular transduction of the Hedgehog pathway involves the release of a large complex containing SUFU. SUFU inhibits the activity of the transcription factor Gli1 and interacts with Gli2, Gli3 and the serine/threonine kinase Fused. SUFU is

widely expressed in adult and embryonic tissues with higher expression in tissues patterned by hegdehog signaling. The SUFU gene locus maps to a region that is deleted in glioblastomas, prostate cancer, malignant melanoma and endometrial cancer.

Function:
Negative regulator in the hedgehog signaling pathway. Down-regulates GLI1-mediated transactivation of target genes. 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. Sequesters GLI1, GLI2 and GLI3 in the cytoplasm, this effect is overcome by binding of STK36 to both SUFU and a GLI protein. Negative regulator of beta-catenin signaling. Regulates the formation of either the repressor form (GLI3R) or the activator form (GLI3A) of the full length form of GLI3 (GLI3FL). GLI3FL is complexed with SUFU in the cytoplasm and is maintained in a neutral state. Without the Hh signal, the SUFU-GLI3 complex is recruited to cilia, leading to the efficient processing of GLI3FL into GLI3R. 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).

Subunit:
May form homodimers. Part of a DNA-bound corepressor complex containing SAP18, GLI1 and SIN3. Part of a complex containing CTNNB1. Binds BTRC, GLI2, GLI3, SAP18 and STK36. Binds both free and DNA-bound GLI1. Interacts with KIF7. Interacts with GLI3FL and this interaction regulates the formation of either repressor or activator forms of GLI3. Its association with GLI3FL is regulated by Hh signaling and dissociation of the SUFU-GLI3 interaction requires the presence of the ciliary motor KIF3A. Interacts with ULK3; inactivating the protein kinase activity of ULK3.

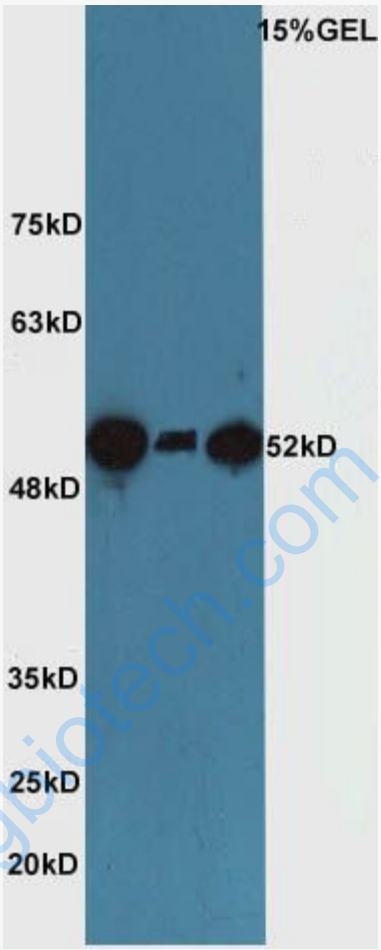
Subcellular Location:
Cytoplasm. Nucleus.

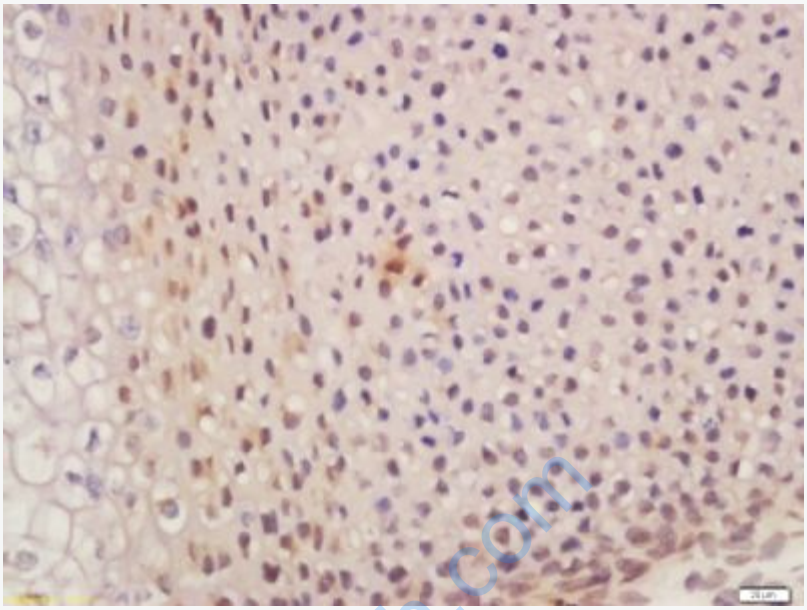
Tissue Specificity:
Ubiquitous in adult tissues. Detected in osteoblasts of the perichondrium in the developing limb of 12-week old embryos. Isoform 1 is detected in fetal brain, lung, kidney and testis. Isoform 2 is detected in fetal testis, and at much lower levels in fetal brain, lung and kidney.

DISEASE:
Defects in SUFU are a cause of medulloblastoma (MDB) [MIM:155255]. MDB is a malignant, invasive embryonal tumor of the cerebellum with a preferential manifestation in children. Defects in SUFU play a role in predisposition to desmoplastic MDB. These tumors make up about 20 to 30% of medulloblastomas, have a more nodular architecture than 'classical' medulloblastoma, and may have a better prognosis.

Similarity:
Belongs to the SUFU family.

	SWISS: Q9UMX1 **Gene ID:** 51684 **Database links:** Entrez Gene: 51684 Human Omim: 607035 Human SwissProt: Q9UMX1 Human Unigene: 404089 Human **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

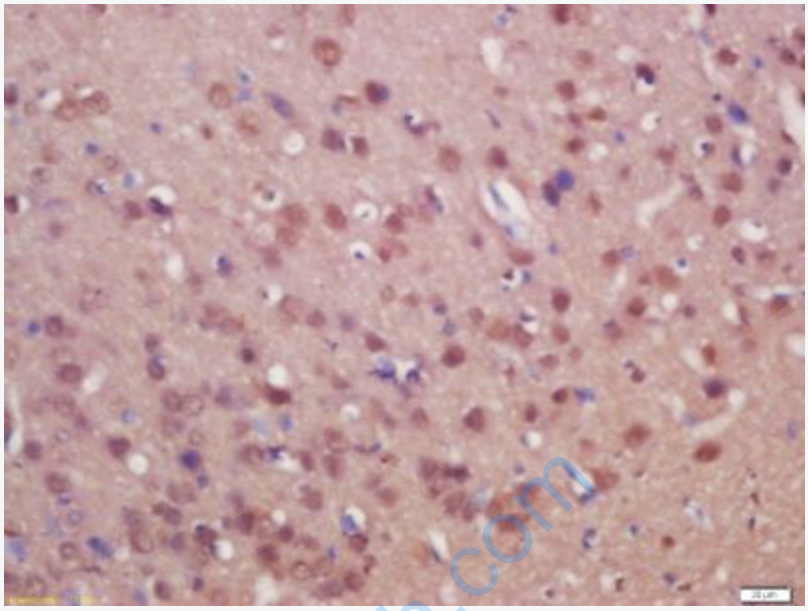
Picture:	 Sample: Intestine (Mouse) Lysate at 40 ug Lung (Mouse) Lysate at 40 ug Brain (Mouse) Lysate at 40 ug Primary: Anti-SUFU/Suppressor of Fused (SL11209R) at 1/300 dilution Secondary: HRP conjugated Goat-Anti-rabbit IgG (SL11209R) at 1/5000 dilution Predicted band size: 53/106 kD Observed band size: 52 kD



Tissue/cell: mouse embryo tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-SUFU Polyclonal Antibody, Unconjugated(SL11209R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-SUFU Polyclonal Antibody, Unconjugated(SL11209R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining