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SUFU Antibody (C-term)
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21656b

Specification

SUFU Antibody (C-term) - Product Information

Application	**WB,E**
Primary Accession	Q9UMX1
Reactivity	**Human**
Host	**Rabbit**
Clonality	**polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**53947**

SUFU Antibody (C-term) - Additional Information

Gene ID 51684

Other Names
Suppressor of fused homolog, SUFUH, SUFU

Target/Specificity
This SUFU antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 308-341 amino acids from the C-terminal region of human SUFU.

Dilution
WB~~1:2000

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
SUFU Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

SUFU Antibody (C-term) - 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:27234298, PubMed:15367681, PubMed:22365972, PubMed:24217340, PubMed:24311597, 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:24311597, PubMed:24217340). 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.

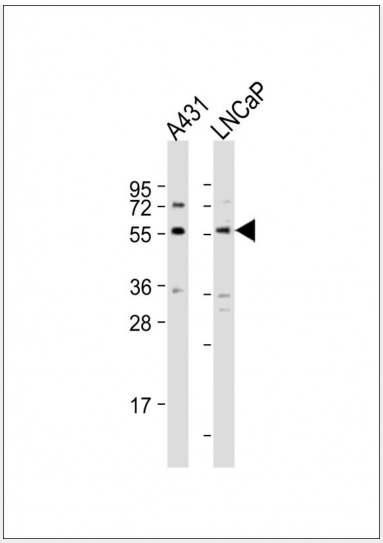
SUFU Antibody (C-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SUFU Antibody (C-term) - Images

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All lanes : Anti-SUFU Antibody (C-term) at 1:2000 dilution Lane 1: A431 whole cell lysate Lane 2: LNCaP whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 54 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

SUFU Antibody (C-term) - Background

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). Required for the proper formation of hair follicles and the control of epidermal differentiation (By similarity).

SUFU Antibody (C-term) - References

Stone D.M.,et al.J. Cell Sci. 112:4437-4448(1999).
Kogerman P.,et al.Nat. Cell Biol. 1:312-319(1999).
Taylor M.D.,et al.Nat. Genet. 31:306-310(2002).
Clark H.F.,et al.Genome Res. 13:2265-2270(2003).
Deloukas P.,et al.Nature 429:375-381(2004).

SUFU Antibody (C-term) - Citations

- Nek2A phosphorylates and stabilizes SuFu: A new strategy of Gli2/Hedgehog signaling regulatory.