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# SUFU antibody - middle region

Rabbit Polyclonal Antibody
Catalog # AI11517

## Product Information

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

## Additional Information

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|---|---|
| **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 - middle region is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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|---|---|
| **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

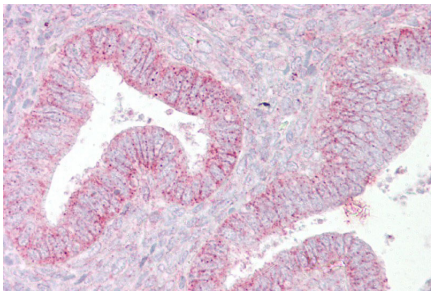
**Tissue Location**

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.

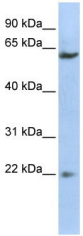
## References

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



Immunohistochemistry with Uterus tissue at an antibody concentration of 5µg/ml using anti-SUFU antibody (AI11517)




WB Suggested Anti-SUFU Antibody Titration: 0.2-1 µg/ml
ELISA Titer: 1:1562500
Positive Control: HepG2 cell lysate