



SUFU Polyclonal Antibody

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| Catalog No | E93273 | Lot Number | P00009 |
| Applications | IHC IF | Quantity | 100ul, 100ug/ul |
| Cross-Reactivity | H M R | Calculated MW | 54kDa |

Immunogen Information

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| Immunogen | Recombinant protein of human SUFU |
| Gene ID | 51684 |
| Swiss Prot | Q9UMX1 |
| Synonyms | SUFUH; SUFUXL; PRO1280; |

Product information

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| Species | Rabbit |
| Isotype | IgG |
| Purity | Affinity purification |
| Storage | Store at -20°C or -80°C. Avoid freeze / thaw cycles. Buffer: PBS with 0.02% sodium azide, 50% glycerol, pH7.3. |

Background

SUFU (Suppressor of Fused) was identified in *Drosophila* as a suppressor of the Fused (Fu) kinase that is essential for Hedgehog signaling during embryonic pattern formation (1). SUFU suppresses Hedgehog signaling by regulating the localization of the transcription factors Gli and Ci (2,3). In *Drosophila*, SUFU may also positively regulate Hedgehog signaling depending on SUFU protein levels and Hedgehog signal intensity (4). SUFU may function as a tumor suppressor as inactivation and loss of heterozygosity of SUFU is associated with human rhabdomyosarcomas and medulloblastomas (5,6). Deletion of SUFU in mice results in embryonic lethality, while heterozygotes exhibit developmental defects characteristic of basal cell nevus syndrome. This aberrant developmental pathway is attributed to ligand-independent activation of Hedgehog signaling (7). GSK-3 β binds and phosphorylates SUFU in vitro and additional information predicts that GSK-3 β may positively regulate Hedgehog signaling through modification of SUFU (8).

References

1. Pham, A. et al. (1995) *Genetics* 140, 587-598.
2. Barnfield, P.C. et al. (2005) *Differentiation* 73, 397-405.
3. Méthot, N. and Basler, K. (2000) *Development* 127, 4001-4010.
4. Dussillol-Godar, F. et al. (2006) *Dev. Biol.* 291, 53-66.
5. Tostar, U. et al. (2006) *J. Pathol.* 208, 17-25.
6. Taylor, M.D. et al. (2002) *Nat. Genet.* 31, 306-310.
7. Svärd, J. et al. (2006) *Dev. Cell.* 10, 187-197.
8. Takenaka, K. et al. (2007) *Biochem. Biophys. Res. Commun.* 353, 501-508.

Recommended Dilutions

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| IHC | 1:50- 1:100 |
| IF | 1:20- 1:50 |