

#2522 Store at -20°C

SUFU (C81H7) Rabbit mAb


Cell Signaling
TECHNOLOGY®

Orders: 877-616-CELL (2355)
orders@cellsignal.com

Support: 877-678-TECH (8324)

Web: info@cellsignal.com
cellsignal.com

3 Trask Lane | Danvers | Massachusetts | 01923 | USA

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M Mk	Endogenous	54	Rabbit IgG	#Q9UMX1	51684

Product Usage Information

Application

 Western Blotting
Immunoprecipitation

Dilution

 1:1000
1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

Specificity / Sensitivity

SUFU (C81H7) Rabbit mAb detects endogenous level of total SUFU protein.

Source / Purification

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Ala340 of human SUFU.

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-3β binds and phosphorylates SUFU *in vitro* and additional information predicts that GSK-3β may positively regulate Hedgehog signaling through modification of SUFU (8).

Background 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.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

WB: Western Blotting **IP:** Immunoprecipitation

Cross-Reactivity Key

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

Trademarks and Patents

Cell Signaling Technology is a trademark of Cell Signaling Technology, Inc.
U.S. Patent No. 7,429,487, foreign equivalents, and child patents deriving therefrom.
All other trademarks are the property of their respective owners. Visit cellsignal.com/trademarks for more information.

Limited Uses

Except as otherwise expressly agreed in a writing signed by a legally authorized representative of CST, the following terms apply to Products provided by CST, its affiliates or its distributors. Any Customer's terms and conditions that are in addition to, or different from, those contained herein, unless separately accepted in

writing by a legally authorized representative of CST, are rejected and are of no force or effect.

Products are labeled with For Research Use Only or a similar labeling statement and have not been approved, cleared, or licensed by the FDA or other regulatory foreign or domestic entity, for any purpose. Customer shall not use any Product for any diagnostic or therapeutic purpose, or otherwise in any manner that conflicts with its labeling statement. Products sold or licensed by CST are provided for Customer as the end-user and solely for research and development uses. Any use of Product for diagnostic, prophylactic or therapeutic purposes, or any purchase of Product for resale (alone or as a component) or other commercial purpose, requires a separate license from CST. Customer shall (a) not sell, license, loan, donate or otherwise transfer or make available any Product to any third party, whether alone or in combination with other materials, or use the Products to manufacture any commercial products, (b) not copy, modify, reverse engineer, decompile, disassemble or otherwise attempt to discover the underlying structure or technology of the Products, or use the Products for the purpose of developing any products or services that would compete with CST products or services, (c) not alter or remove from the Products any trademarks, trade names, logos, patent or copyright notices or markings, (d) use the Products solely in accordance with CST Product Terms of Sale and any applicable documentation, and (e) comply with any license, terms of service or similar agreement with respect to any third party products or services used by Customer in connection with the Products.