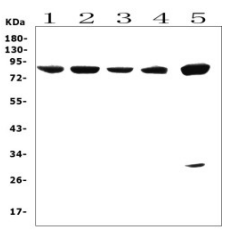
SMURF2 Antibody / SMAD Specific E3 Ubiquitin Protein Ligase 2 Antibody (R32322)

Catalog No.	Formulation	Size
R32322	0.5mg/ml if reconstituted with 0.2ml sterile DI water	100 ug

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human, Mouse, Rat
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Antigen affinity
Buffer	Lyophilized from 1X PBS with 2.5% BSA and 0.025% sodium azide
UniProt	Q9HAU4
Applications	Western blot: 0.5-1ug/ml
Limitations	This SMURF2 Antibody / SMAD Specific E3 Ubiquitin Protein Ligase 2 Antibody is available for research use only.



SMURF2 Antibody Mouse and Rat Tissue WB. Western blot testing of rat testis (lane 1), rat pancreas (lane 2), rat stomach (lane 3), mouse testis (lane 4), and mouse pancreas (lane 5) lysates using SMURF2 antibody detected a prominent band at approximately 86 kDa, consistent with the expected molecular weight of SMURF2. Detection in multiple rodent tissues demonstrates the broad expression of this HECT-domain E3 ubiquitin ligase. This SMURF2 Antibody, also called a SMAD Specific E3 Ubiquitin Protein Ligase 2 Antibody, is useful for investigating protein ubiquitination, TGF-beta signaling, and ubiquitin-dependent regulation of cellular signaling pathways.



SMURF2 Antibody Human Liver Cancer Cell WB. Western blot testing of human SMMC cells using SMURF2 antibody detected a specific band at approximately 86 kDa, consistent with the expected molecular weight of SMURF2. The observed band confirms expression of this HECT-domain E3 ubiquitin ligase in human liver cancer cells. This SMURF2 Antibody, also called a SMAD Specific E3 Ubiquitin Protein Ligase 2 Antibody, is useful for investigating protein ubiquitination, TGF-beta signaling, signal transduction, and tumor biology.

Description

SMURF2 Antibody / SMAD Specific E3 Ubiquitin Protein Ligase 2 Antibody recognizes SMURF2, a HECT-domain E3 ubiquitin ligase originally identified through its ability to regulate transforming growth factor beta (TGF-beta) signaling by ubiquitinating SMAD proteins and their associated signaling components. As a member of the NEDD4 family of ubiquitin ligases, SMURF2 selectively transfers ubiquitin to target proteins, controlling their stability, localization, and biological activity. Through these actions, SMURF2 functions as an important regulator of signal transduction, cellular differentiation, proliferation, and tissue homeostasis.

SMAD Specific E3 Ubiquitin Protein Ligase 2 modulates both canonical and non-canonical TGF-beta signaling by targeting receptor-regulated SMADs, inhibitory SMADs, and additional signaling molecules for ubiquitination. Beyond the TGF-beta pathway, SMURF2 regulates proteins involved in bone morphogenetic protein (BMP), Wnt, Hedgehog, and additional developmental signaling networks. It also participates in chromatin organization, DNA damage responses, cellular senescence, and maintenance of genomic stability through interactions with nuclear proteins and chromatin-associated factors. These diverse biological functions establish SMURF2 as an important coordinator of cellular signaling and protein homeostasis.

Aberrant SMURF2 expression has been reported in numerous human diseases, including cancer, fibrosis, inflammatory disorders, and age-related pathologies. Depending on cellular context, SMURF2 may function as either a tumor suppressor or a promoter of malignant progression by regulating proteins involved in cell cycle control, epithelial-to-mesenchymal transition, apoptosis, and metastatic behavior. Continued investigation of SMURF2 has provided important insights into ubiquitin-dependent regulation of intracellular signaling pathways and their contribution to human disease.

This rabbit polyclonal antibody was developed for specific detection of SMURF2 in research applications. Its reactivity with human, mouse, and rat samples makes it useful for studies of TGF-beta signaling, ubiquitin-mediated protein regulation, developmental biology, and cancer research. A SMURF2 Antibody is a valuable research tool for investigating SMAD Specific E3 Ubiquitin Protein Ligase 2, ubiquitination, signal transduction, and regulation of cellular signaling pathways.

For a broader overview of SMURF2 biology, E3 ubiquitin ligase function, and ubiquitin-dependent signaling, see our SMURF2 Antibody / E3 Ubiquitin Ligase Antibody page.

Application Notes

Optimal dilution of the SMURF2 Antibody / SMAD Specific E3 Ubiquitin Protein Ligase 2 Antibody should be determined by the researcher.

Immunogen

Amino acids DHNNRTTQFTDPRLSANLHLVLNRQNQLKDQQQQQ of human SMURF2 were used as the immunogen for the SMURF2 antibody.

Storage

After reconstitution, the SMURF2 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Alternate Names

SMURF2 antibody, SMAD Specific E3 Ubiquitin Protein Ligase 2 antibody, SMAD Ubiquitination Regulatory Factor 2 antibody, E3 Ubiquitin Ligase antibody

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