

Anti-SMURF1 Picoband Antibody

Catalog # ABO12578

Product Information

Application	WB
Primary Accession	Q9HCE7
Host	Rabbit
Reactivity	Human, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for E3 ubiquitin-protein ligase SMURF1(SMURF1) detection. Tested with WB in Human;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	57154
Other Names	E3 ubiquitin-protein ligase SMURF1, hSMURF1, 2.3.2.26, HECT-type E3 ubiquitin transferase SMURF1, SMAD ubiquitination regulatory factor 1, SMAD-specific E3 ubiquitin-protein ligase 1, SMURF1, KIAA1625
Calculated MW	86114
Application Details	Western blot, 0.1-0.5 µg/ml, Human, Rat
Subcellular Localization	Cytoplasm . Cell membrane ; Peripheral membrane protein ; Cytoplasmic side .
Tissue Specificity	Expressed in melanocytes (PubMed:23999003). .
Source	Eukaryota
Protein Name	E3 ubiquitin-protein ligase SMURF1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Na ₃ N.
Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human SMURF1 (326-351aa DHNNRTTQFTDPRLLHHIMNHQCQLKE), identical to the related mouse sequence.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins.
Storage	At -20° C for one year. After r° Constitution, at 4° C for one month. It° Can also

be aliquotted and stored frozen at -20 °C for a longer time. Avoid repeated freezing and thawing.

Protein Information

Name	SMURF1
Synonyms	KIAA1625
Function	E3 ubiquitin-protein ligase that acts as a negative regulator of BMP signaling pathway. Mediates ubiquitination and degradation of SMAD1 and SMAD5, 2 receptor-regulated SMADs specific for the BMP pathway. Promotes ubiquitination and subsequent proteasomal degradation of TRAF family members and RHOA. Promotes ubiquitination and subsequent proteasomal degradation of MAVS (PubMed: 23087404). Acts as a positive regulator of smoothened signaling pathway by mediating ubiquitination of PTCH1, leading to endocytosis and lysosomal degradation of PTCH1 (By similarity). Acts as an antagonist of TGF-beta signaling by ubiquitinating TGFBR1 and targeting it for degradation (PubMed: 21791611). Plays a role in dendrite formation by melanocytes (PubMed: 23999003).
Cellular Location	Cytoplasm. Cell membrane; Peripheral membrane protein; Cytoplasmic side
Tissue Location	Expressed in melanocytes (PubMed:23999003).

Background

E3 ubiquitin-protein ligase SMURF1 is an enzyme that in humans is encoded by the SMURF1 gene. It is mapped to 7q22.1. This gene encodes a ubiquitin ligase that is specific for receptor-regulated SMAD proteins in the bone morphogenetic protein (BMP) pathway. This protein plays a key roll in the regulation of cell motility, cell signalling, and cell polarity. Alternative splicing results in multiple transcript variants encoding different isoforms.

Images



Western blot analysis of SMURF1 expression in rat brain extract (lane 1) and MCF-7 whole cell lysates (lane 2). SMURF1 at 86KD was detected using rabbit anti- SMURF1 Antigen Affinity purified polyclonal antibody (Catalog # ABO12578) at 0.5 µg/mL. The blot was developed using chemiluminescence (ECL) method .

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