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Product datasheet for AP11952PU-N

SMURF1 (N-term) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	ELISA 1:1,000. Western blot 1:100 - 1:500. Immunohistochemistry 1:50 - 1:100.
Reactivity:	Human, Mouse
Host:	Rabbit
Isotype:	Ig
Clonality:	Polyclonal
Immunogen:	This antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide selected from the N-terminal region of human SMURF1.
Specificity:	This antibody detects SMURF1 at N-term.
Formulation:	PBS with 0.09% (W/V) sodium azide State: Purified State: Liquid Ig fraction
Concentration:	lot specific
Purification:	Protein G column, eluted with high and low pH buffers and neutralized immediately, followed by dialysis against PBS
Conjugation:	Unconjugated
Storage:	Store the antibody at 2 - 8 °C up to one month or (in aliquots) at -20 °C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	SMAD specific E3 ubiquitin protein ligase 1
Database Link:	Entrez Gene 57154 Human Q9HCE7

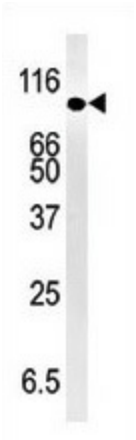
View online »

Background: Members of the transforming growth factor-beta (TGFB) family signal through type I and type II serine/threonine-kinase receptors, which in turn activate the SMAD signaling pathway. Bone morphogenetic protein (BMP) receptors target SMAD1, SMAD5, and SMAD8, whereas receptors for activin and TGFB (e.g., ACVR1 and TGFBR1, respectively) target SMAD2 and SMAD3. Phosphorylation of these receptor-regulated SMADs induces their association with the common-partner SMAD, SMAD4. Smurf1, a HECT domain E3 ubiquitin ligase, regulates cell polarity and protrusive activity and is required to maintain the transformed morphology and motility of a tumor cell. Atypical protein kinase C-zeta (PKC2), an effector of the Cdc42/Rac1-PAR6 polarity complex, recruits Smurf1 to cellular protrusions, where it controlled the local level of RhoA. Smurf1 thus links the polarity complex to degradation of RhoA in lamellipodia and filopodia to prevent RhoA signaling during dynamic membrane movements.

Synonyms: SMURF 1, SMURF-1, KIAA1625

Note: Molecular weight: 86113 Da

Product images:



Western blot analysis of anti-SMURF1 in mouse kidney tissue lysate (35 ug/lane). SMURF1 (arrow) was detected using the purified Pab.

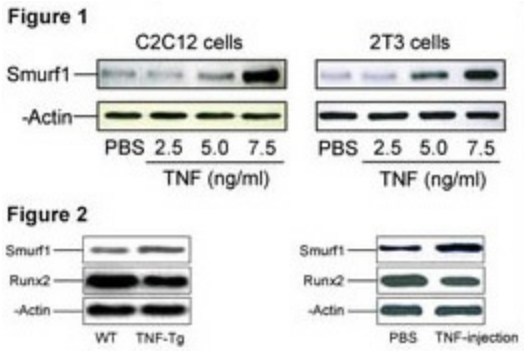
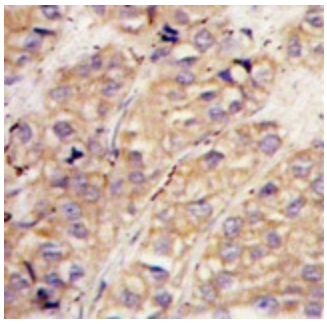


Figure 1 - C2C12 or 2T3 cells were treated with PBS or TNF (2.5-7.5 ng/ml) for 72 h. Smurf1 and β-actin protein levels were detected by Western blot. Figure 2 - Proteins were extracted from the metaphyseal region of 4-month-old TNF-over-expressing mice (TNF-Tg) and wild type (wt) littermates (left panel). PBS or TNF was injected (0.25 ug/injection, 3 times/day for 3 days) into the calvarial bones of wt mice. Proteins were extracted from the bones and analyzed by Western blotting for Smurf1, Runx2 and β-actin protein levels (right panel).



Formalin-fixed and paraffin-embedded human breast carcinoma tissue reacted with hSMURF1-W81, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.