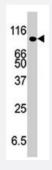
# SMURF1 polyclonal antibody

Catalog # PAB1747 Size 400 uL

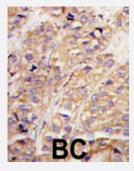
## Applications



#### Western Blot (Tissue lysate)

Western blot analysis of SMURF1 polyclonal antibody (Cat # PAB1747) in mouse kidney tissue lysate (35 ug/lane). SMURF1 (arrow) was detected using the purified polyclonal antibody.

Figure 1		C2C12 cells				2T3 cells			
SMURF1-			-	-			-	-	
-Actin-	-			-		-	-	-	
	PE	S 2.5	5 5.0	7.5	PBS	2.5	5.0	7.5	
		TNF (ng/ml)				TNF (ng/ml)			
Figure 2									
SANURF1	-	-			SMURF1-	-		-	
Runx2	-	-			Runx2 -	-			
-Actin	-	-			-Actin -	-	• •	-	
	WT	TNF-T				PB		F-injection	



#### Western Blot

Figure 1. C2C12 or 2T3 cells were treated with PBS or TNF (2.5-7.5 ng/mL) for 72 h. SMURF1 and beta-actin protein levels were detected by Western blot SMURF1 polyclonal antibody (Cat # PAB1747).

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 polyclonal antibody (Cat # PAB1747), Runx2 and beta-actin protein levels (right panel).

#### Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections)

Formalin-fixed and paraffin-embedded human breast carcinoma tissue reacted with SMURF1 polyclonal antibody (Cat # PAB1747), 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.

#### Specification

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Product Description	Rabbit polyclonal antibody raised against synthetic peptide of SMURF1.			
Immunogen	A synthetic peptide (conjugated with KLH) corresponding to N-terminus of human SMURF1.			
Host	Rabbit			
Reactivity	Human, Mouse			
Form	Liquid			
Purification	Protein G purification			
Recommend Usage	Western Blot (1:1000) Immunohistochemistry (1:50-100)			
	The optimal working dilution should be determined by the end user.			
Storage Buffer	In PBS (0.09% sodium azide)			
Storage Instruction	Store at 4°C. For long term storage store at -20°C.			
	Aliquot to avoid repeated freezing and thawing.			
Note	This product contains sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which sh d be handled by trained staff only.			

#### Applications

• Western Blot (Tissue lysate)

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## Gene Info — SMURF1

Entrez GenelD	<u>57154</u>			
Protein Accession#	NP_065162;Q9HCE7			
Gene Name	SMURF1			
Gene Alias	KIAA1625			
Gene Description	SMAD specific E3 ubiquitin protein ligase 1			
Omim ID	<u>605568</u>			
Gene Ontology	Hyperlink			
Gene Summary	This gene encodes a ubiquitin ligase that is specific for receptor-regulated SMAD proteins in the bone morphogenetic protein (BMP) pathway. A similar protein in Xenopus is involved in embryor c pattern formation. Alternative splicing results in multiple transcript variants encoding different is forms. An additional transcript variant has been identified, but its full length sequence has not been n determined. [provided by RefSeq			
Other Designations	E3 ubiquitin ligase SMURF1 Smad ubiquitination regulatory factor 1 Smad-specific E3 ubiquitin li gase 1			

### **Publication Reference**

<u>Tumor necrosis factor promotes Runx2 degradation through up-regulation of Smurf1 and Smurf2 in osteoblasts.</u>

Kaneki H, Guo R, Chen D, Yao Z, Schwarz EM, Zhang YE, Boyce BF, Xing L.

The Journal of Biological Chemistry 2005 Dec; 281(7):4326.

## Pathway

- Endocytosis
- TGF-beta signaling pathway
- <u>Ubiquitin mediated proteolysis</u>