

Product datasheet

Recombinant human SMURF 2 protein ab95930

2 Images

Description

Product name	Recombinant human SMURF 2 protein
Biological activity	Specific Activity: 0.00049 pmol/min/µg Assay conditions: 50 µl reaction mix (4 mM ATP, 5mM MgCl ₂ , 1mM DTT, E1 (0.5 µg), E2 (2.8 µg), Biotin-Ubiquitin (0.5 µg) and SMURF 2 (0-2 µg) in 50mM Tris pH 7.4) incubate for 30min at 37°C, then add to streptavidin coated plates and incubate for 30min at 37°C. Add antibody against SMURF 2, incubate 1h. Finally, incubate 1h with the Europium-labeled secondary antibody. Time resolved fluorescence measured at room temperature (Lambda exc=330 nm, Lambda em=620 nm).
Purity	80 % . Purity is >80% by SDS-PAGE.
Expression system	Baculovirus
Accession	Q9HAU4
Protein length	Protein fragment
Animal free	No
Nature	Recombinant
Species	Human
Predicted molecular weight	72 kDa including tags
Amino acids	130 to 748
Tags	DDDDK tag N-Terminus

Specifications

Our [Abpromise guarantee](#) covers the use of **ab95930** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE Functional Studies
Form	Liquid

Preparation and Storage

Stability and Storage	Shipped on Dry Ice. Store at -80°C. pH: 8.00
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Constituents: 0.0462% DTT, 0.395% Tris HCl, 0.05% Tween, 20% Glycerol, 0.58% Sodium chloride

102 µg/ml FLAG peptide

This product is an active protein and may elicit a biological response in vivo, handle with caution.

General Info

Function

E3 ubiquitin-protein ligase which accepts ubiquitin from an E2 ubiquitin-conjugating enzyme in the form of a thioester and then directly transfers the ubiquitin to targeted substrates. Interacts with SMAD1 and SMAD7 in order to trigger their ubiquitination and proteasome-dependent degradation. In addition, interaction with SMAD7 activates autocatalytic degradation, which is prevented by interaction with SCYE1. Forms a stable complex with the TGF-beta receptor-mediated phosphorylated SMAD2 and SMAD3. In this way, SMAD2 may recruit substrates, such as SNON, for ubiquitin-mediated degradation. Enhances the inhibitory activity of SMAD7 and reduces the transcriptional activity of SMAD2. Coexpression of SMURF2 with SMAD1 results in considerable decrease in steady-state level of SMAD1 protein and a smaller decrease of SMAD2 level.

Tissue specificity

Widely expressed.

Pathway

Protein modification; protein ubiquitination.

Sequence similarities

Contains 1 C2 domain.

Contains 1 HECT (E6AP-type E3 ubiquitin-protein ligase) domain.

Contains 3 WW domains.

Domain

The second and third WW domains are responsible for interaction with the PY-motif of R-SMAD (SMAD1, SMAD2 and SMAD3).

The C2 domain is involved in autoinhibition of the catalytic activity by interacting with the HECT domain.

Post-translational modifications

Auto-ubiquitinated and ubiquitinated in the presence of RNF11 and UBE2D1.

Cellular localization

Nucleus. Cytoplasm. Cell membrane. Membrane raft. Cytoplasmic in the presence of SMAD7. Co-localizes with CAV1, SMAD7 and TGF-beta receptor in membrane rafts.

Images

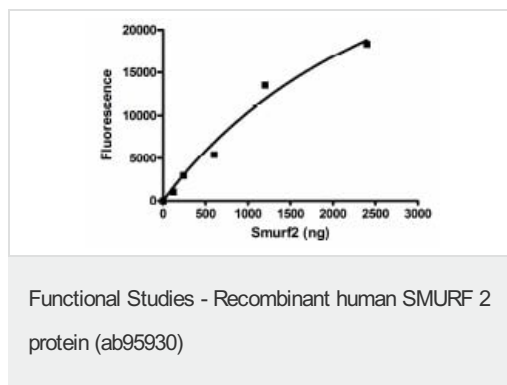
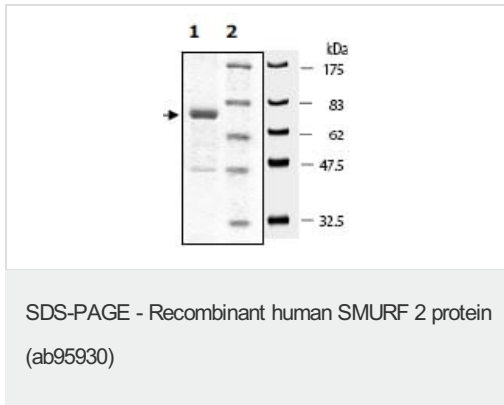


Image showing specific activity of ab95930.



10% SDS-PAGE

Lane 1: ab95930 (4µg)

Lane 2: Molecular weight markers

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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