# abcam

# Product datasheet

# Recombinant human SMURF 2 protein ab95930

## 画像数2

#### 製品の詳細

製品名 Recombinant human SMURF 2 protein

生理活性 Specific Activity: 0.00049 pmol/min/μg Assay conditions: 50 μl reaction mix (4 mM ATP, 5mM

MgCl2, 1mM DTT, E1 (0.5  $\mu$ g), E2 (2.8  $\mu$ g), Biotin-Ubiquitin (0.5  $\mu$ g) and SMURF 2 (0-2  $\mu$ g) 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 Europeum-labeled secondary antibody. Time resolved fluorescence measured at room temperature (Lambda exc=330 nm, Lambda em=620 nm). Specific Activity: 0.00049 pmol/min/ $\mu$ g Assay conditions: 50  $\mu$ l reaction mix (4 mM ATP, 5mM MgCl2, 1mM DTT, E1 (0.5  $\mu$ g), E2 (2.8  $\mu$ g), Biotin-Ubiquitin (0.5  $\mu$ g) and SMURF 2 (0-2  $\mu$ g) 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 Europeum-labeled secondary antibody. Time resolved fluorescence measured at room temperature (Lambda exc=330 nm, Lambda em=620 nm).

精製度 > 80 % SDS-PAGE.

Affinity purified.

発現系 Baculovirus infected insect cells

アクセッション番号 Q9HAU4

タンパク質長 Protein fragment

Animal free No

由来 Recombinant

生物種 Human

予測される分子量 72 kDa including tags

**領域** 130 to 748

タグ DDDDK tag N-Terminus

特性

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.

アプリケーション SDS-PAGE

**Functional Studies** 

#### 前処理および保存

保存方法および安定性

Shipped on Dry Ice. Store at -80°C.

pH: 8.00

Constituents: 0.0462% (R\*,R\*)-1,4-Dimercaptobutan-2,3-diol, 0.395% Tris HCl, 0.05% Tween,

20% Glycerol (glycerin, glycerine), 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.

#### 関連情報

機能

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.

組織特異性

Widely expressed.

パスウェイ

Protein modification; protein ubiquitination.

配列類似性

Contains 1 C2 domain.

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

Contains 3 WW domains.

ドメイン

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.

翻訳後修飾

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

細胞内局在

Nucleus. Cytoplasm. Cell membrane. Membrane raft. Cytoplasmic in the presence of SMAD7.

Co-localizes with CAV1, SMAD7 and TGF-beta receptor in membrane rafts.

#### 画像

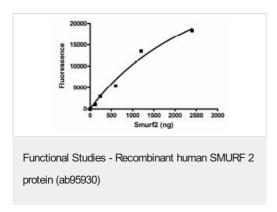
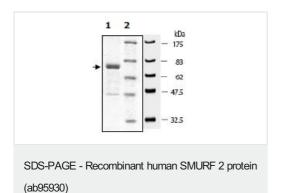


Image showing specific activity of ab95930.



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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