


Product datasheet

Anti-SMAD1/3/5 (phospho S423 + S425) antibody ab51451

★★★★★ [15 Abreviews](#) [52 References](#) [3 Images](#)

Overview

Product name	Anti-SMAD1/3/5 (phospho S423 + S425) antibody
Description	Rabbit polyclonal to SMAD1/3/5 (phospho S423 + S425)
Host species	Rabbit
Specificity	ab51451 is specific for the phosphorylated form of the protein although minimal reactivity with nonphosphorylated human Smad3 can be observed by ELISA and WB. ab51451 also reacts with phosphorylated Smad1 and Smad5 but negligible reactivity is seen against other phosphorylated Smad family members.
Tested applications	Suitable for: IHC-P, WB
Species reactivity	Reacts with: Mouse, Human Predicted to work with: Rat, Cow, Pig, Xenopus laevis, Zebrafish 
Immunogen	Synthetic peptide corresponding to Human SMAD1/3/5 aa 400-500 (phospho S423 + S425). Database link: P84022 Run BLAST with Run BLAST with
Positive control	WB: HEK293, HeLa, MCF-7, Jurkat, A431, A549, LNCap, MOLT-4, Ramos, Raji, A-172, NIH/3T3 Lysate; MEF lysate; Hep3B lysat.
General notes	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
Storage buffer	Preservative: 0.01% Sodium azide Constituents: 0.33% Potassium phosphate, 0.87% Sodium chloride

Purity	Immunogen affinity purified
Purification notes	ab51451 was affinity purified from monospecific antiserum by immunoaffinity purification. Antiserum was first purified against the phosphorylated form of the immunizing peptide. The resultant affinity purified antibody was then cross adsorbed against the non-phosphorylated form of the immunizing peptide.
Clonality	Polyclonal
Isotype	IgG

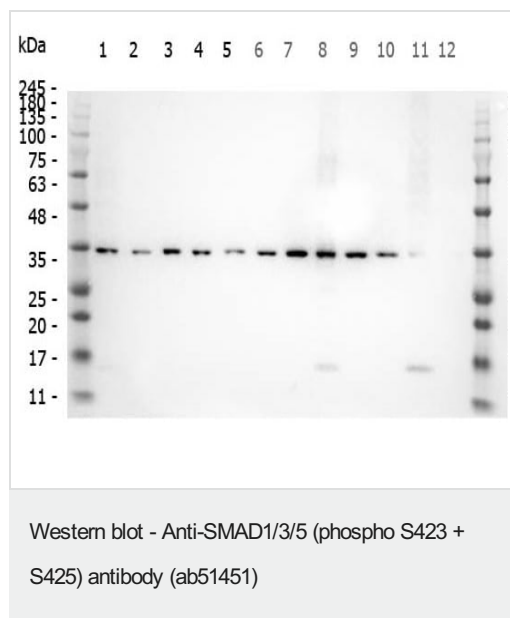
Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab51451 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
IHC-P	★★★★★ (6)	Use at an assay dependent concentration.
WB	★★★★★ (3)	1/2000 - 1/20000. Predicted molecular weight: 48 kDa. Stimulation with 2 ng/ml TGF-beta for 1 hour is suggested.

Target

Images



All lanes : Anti-SMAD1/3/5 (phospho S423 + S425) antibody (ab51451) at 1 µg/ml

- Lane 1** : HEK293 lysate
- Lane 2** : HeLa Lysate
- Lane 3** : MCF-7 Lysate
- Lane 4** : Jurkat Lysate
- Lane 5** : A431 Lysate
- Lane 6** : A549 Lysate
- Lane 7** : LNCap Lysate
- Lane 8** : MOLT-4 Lysate
- Lane 9** : Ramos Lysate
- Lane 10** : Raji Lysate
- Lane 11** : A-172 Lysate
- Lane 12** : NIH/3T3 Lysate

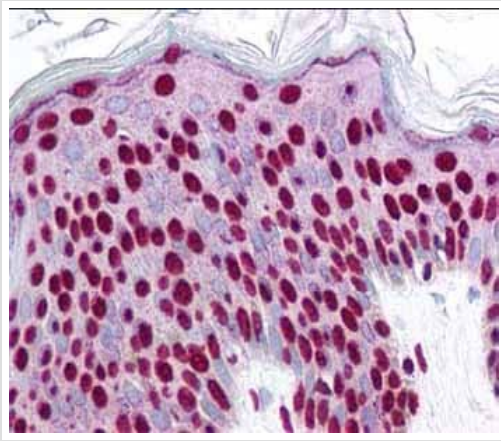
Lysates/proteins at 10 µg per lane.

Secondary

Lanes 1-2 & 4-12 : Peroxidase rabbit secondary antibody at 1/30000 dilution

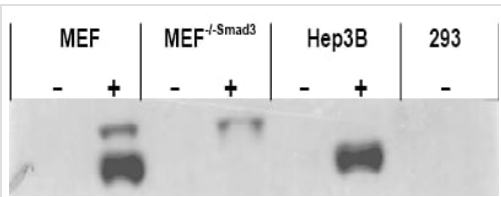
Lane 3 : Peroxidase rabbit secondary antibody

Predicted band size: 48 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SMAD1/3/5 (phospho S423 + S425) antibody (ab51451)

ab51451 at 2.5 µg/ml staining epidermal keratinocytes at 40X. This image shows strong nuclear staining with localization of the antibody as the precipitated red signal and a hematoxylin purple nuclear counterstain.



Western blot - Anti-SMAD1/3/5 (phospho S423 + S425) antibody (ab51451)

All lanes : Anti-SMAD1/3/5 (phospho S423 + S425) antibody (ab51451) at 1/2000 dilution

Lane 1 : MEF lysate (control)

Lane 2 : MEF lysate, after stimulation with 2 ng/ml of TGF-β for 1 hour

Lane 3 : MEF^{-/-Smad3} lysate (control)

Lane 4 : MEF^{-/-Smad3} lysate, after stimulation with 2 ng/ml of TGF-β for one hour

Lane 5 : Hep3B lysate (control)

Lane 6 : Hep3B lysate, after stimulation with 2 ng/ml of TGF-β for one hour

Lane 7 : HEK 293 lysate (control)

Predicted band size: 48 kDa

Image courtesy of Ying Zhang, NIH, CCR, Bethesda, MD.

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