

Product datasheet

Anti-Smad1 antibody [EPR5522] ab126761

KO VALIDATED

Recombinant

RabMAb

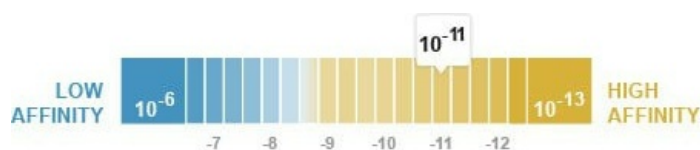
[2 References](#) [6 Images](#)

Overview

Product name	Anti-Smad1 antibody [EPR5522]
Description	Rabbit monoclonal [EPR5522] to Smad1
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, Flow Cyt (Intra) Unsuitable for: IP
Species reactivity	Reacts with: Human
Immunogen	Synthetic peptide within Human Smad1 aa 200-300. The exact sequence is proprietary.
Positive control	WB: HeLa, HT1080, HUVEC, A673, HepG2, and 293T cell lysates. IHC-P: Human colon tissue. Flow Cyt (intra): HeLa cells
General notes	<p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Stable for 12 months at -20°C.
Dissociation constant (K_D)	K _D = 2.56 x 10 ⁻¹¹ M



[Learn more about K_D](#)

Storage buffer	pH: 7.20
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	Preservative: 0.01% Sodium azide
	Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.5% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR5522
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab126761 in the following tested applications. The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

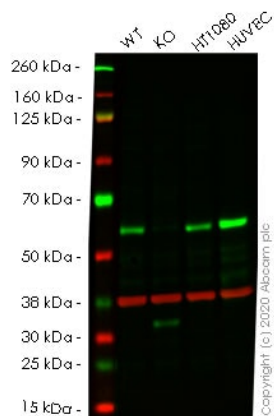
Application	Abreviews	Notes
WB		1/1000 - 1/10000. Detects a band of approximately 58 kDa (predicted molecular weight: 52 kDa).
IHC-P		1/50 - 1/100. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.
Flow Cyt (Intra)		1/400. ab172730 - Rabbit monoclonal IgG, is suitable for use as an isotype control with this antibody.

Application notes Is unsuitable for IP.

Target

Function	Transcriptional modulator activated by BMP (bone morphogenetic proteins) type 1 receptor kinase. SMAD1 is a receptor-regulated SMAD (R-SMAD). SMAD1/OAZ1/PSMB4 complex mediates the degradation of the CREBBP/EP300 repressor SNIP1.
Tissue specificity	Ubiquitous. Highest expression seen in the heart and skeletal muscle.
Sequence similarities	Belongs to the dwarfin/SMAD family. Contains 1 MH1 (MAD homology 1) domain. Contains 1 MH2 (MAD homology 2) domain.
Post-translational modifications	Phosphorylated on serine by BMP type 1 receptor kinase. Ubiquitin-mediated proteolysis by SMAD-specific E3 ubiquitin ligase SMURF1.
Cellular localization	Cytoplasm. Nucleus. Cytoplasmic in the absence of ligand. Migrates to the nucleus when complexed with SMAD4. Co-localizes with LEMD3 at the nucleus inner membrane.

Images



Western blot - Anti-Smad1 antibody [EPR5522]
(ab126761)

All lanes : Anti-Smad1 antibody [EPR5522] (ab126761) at 1/1000 dilution

Lane 1 : Wild-type HeLa cell lysate

Lane 2 : SMAD1 knockout HeLa cell lysate

Lane 3 : HT1080 cell lysate

Lane 4 : Huvec cell lysate

Lysates/proteins at 20 µg per lane.

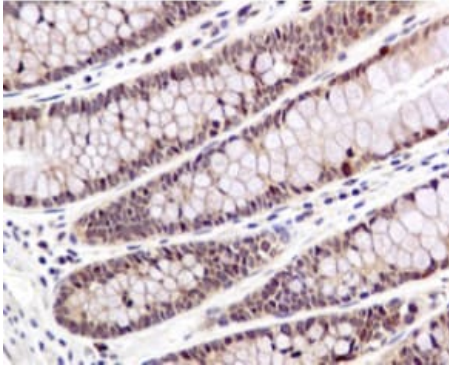
Performed under reducing conditions.

Predicted band size: 52 kDa

Observed band size: 52 kDa

Lanes 1- 4: Merged signal (red and green). Green - ab126761 observed at 52 kDa. Red - Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) observed at 37 kDa.

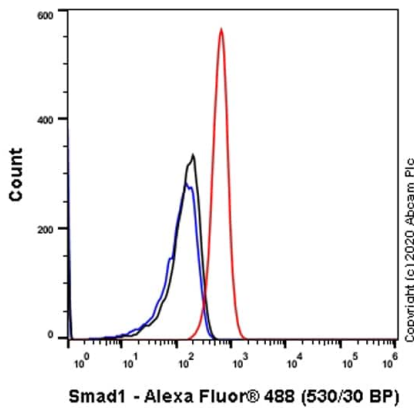
ab126761 was shown to react with Smad1 in wild-type HeLa cells in western blot. Loss of signal was observed when knockout cell line [ab265400](#) (knockout cell lysate [ab257686](#)) was used. Wild-type HeLa and SMAD1 knockout HeLa cell lysates were subjected to SDS-PAGE. ab126761 and Anti-GAPDH antibody [6C5] - Loading Control ([ab8245](#)) were incubated overnight at 4°C at a 1 in 1000 Dilution and a 1 in 20000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye®800CW) preadsorbed ([ab216773](#)) and Goat anti-Mouse IgG H&L (IRDye®680RD) preadsorbed ([ab216776](#)) secondary antibodies at 1 in 20000 dilution for 1 hour at room temperature before imaging.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Smad1 antibody [EPR5522] (ab126761)

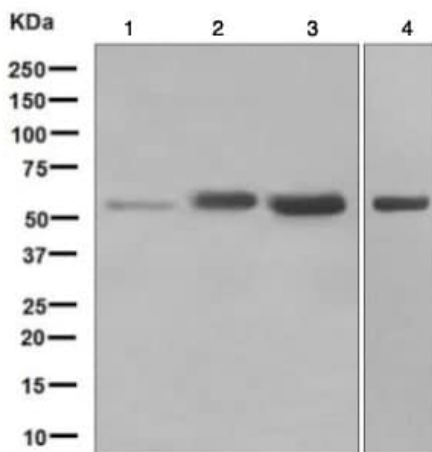
ab126761, at 1/50 dilution, staining Smad1 in paraffin-embedded Human colon tissue by Immunohistochemistry.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Smad1 antibody [EPR5522] (ab126761)

Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling Smad1 with purified ab126761 at 1/400 dilution (1 µg/mL) (Red). Cells were fixed with 4% Paraformaldehyde and permeabilised with 90% Methanol. A Goat anti rabbit IgG (Alexa Fluor® 488, [ab150077](#)) secondary antibody was used at 1/2000. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).



Western blot - Anti-Smad1 antibody [EPR5522] (ab126761)

All lanes : Anti-Smad1 antibody [EPR5522] (ab126761) at 1/1000 dilution

Lane 1 : HeLa cell lysate

Lane 2 : A673 cell lysate

Lane 3 : HepG2 cell lysate

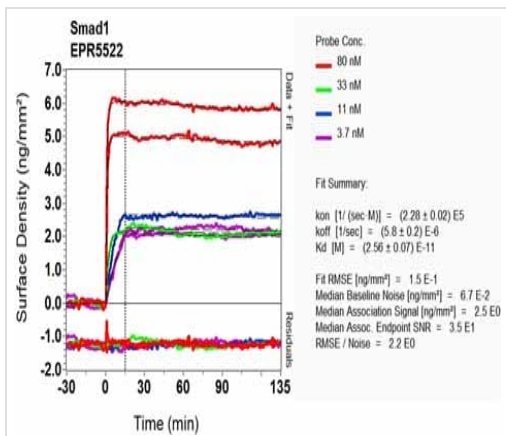
Lane 4 : 293T cell lysate

Lysates/proteins at 10 µg per lane.

Secondary

All lanes : HRP-conjugated goat anti-rabbit at 1/2000 dilution

Predicted band size: 52 kDa



OI-RD Scanning - Anti-Smad1 antibody [EPR5522]
(ab126761)

Equilibrium disassociation constant (K_D)

Learn more about K_D

[Click here to learn more about \$K_D\$](#)

Why choose a recombinant antibody?



Research with confidence
Consistent and reproducible results



Long-term and scalable supply
Recombinant technology



Success from the first experiment
Confirmed specificity



Ethical standards compliant
Animal-free production

Anti-Smad1 antibody [EPR5522] (ab126761)

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

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