

SMAD2 Recombinant Rabbit Monoclonal Antibody (31H15L4)

Product Details	
Size	100 µg
Species Reactivity	Human
Published Species	Human
Host/Isotype	Rabbit / IgG
Expression system	Expi293
Class	Recombinant Monoclonal
Type	Antibody
Clone	31H15L4
Conjugate	Unconjugated
Immunogen	A peptide corresponding to amino acids 81-107 of Q15796.
Form	Liquid
Concentration	0.5 mg/mL
Purification	Protein A
Storage buffer	PBS
Contains	0.09% sodium azide
Storage conditions	Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.
RRID	AB_2532277

Applications	Tested Dilution	Publications
Western Blot (WB)	0.5-1 µg/mL	3 Publications
Immunohistochemistry (Paraffin) (IHC (P))	-	1 Publication
Immunocytochemistry (ICC/IF)	1 µg/mL	-
Flow Cytometry (Flow)	1-3 µg/1x10^6 cells	-
ELISA (ELISA)	1-5 µg/mL	-
ChIP assay (ChIP)	3 µg	1 Publication
Miscellaneous PubMed (Misc)	-	1 Publication

Product Specific Information

This antibody is predicted to react with bovine, carp, chicken, goldfish, mouse, opossum, orangutan, rat, Xenopus and zebrafish based on sequence homology.

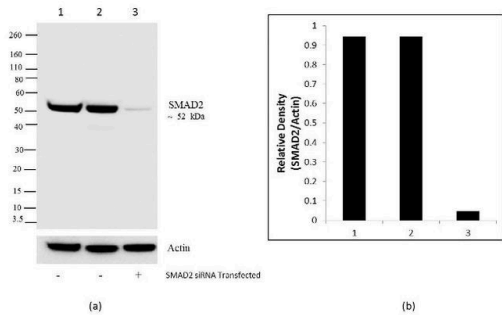
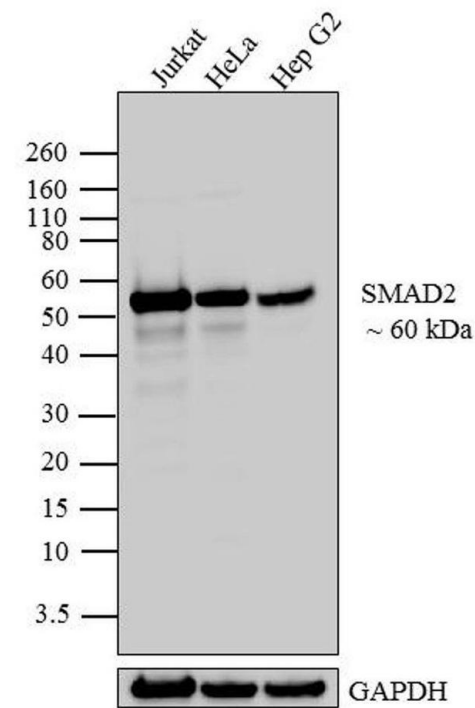
Intact IgG appears on a non-reducing gel as ~150 kDa band and upon reduction generating a ~25 kDa light chain band and a ~50 kDa heavy chain.

Recombinant rabbit monoclonal antibodies are produced using in vitro expression systems. The expression systems are developed by cloning in the specific antibody DNA sequences from immunoreactive rabbits. Then, individual clones are screened to select the best candidates for production. The advantages of using recombinant rabbit monoclonal antibodies include: better specificity and sensitivity, lot-to-lot consistency, animal origin-free formulations, and broader immunoreactivity to diverse targets due to larger rabbit immune repertoire.

Product Images For SMAD2 Recombinant Rabbit Monoclonal Antibody (31H15L4)

SMAD2 Antibody (700048) in WB

Western blot analysis of SMAD2 was performed by loading 20 µg of Jurkat (lane1), HeLa (lane2) and Hep G2 (lane3), cell lysates using Novex® NuPAGE® 4-12 % Bis-Tris gel (Product # NP0321BOX), XCell SureLock Electrophoresis System (Product # EI0002), Novex® Sharp Pre-Stained Protein Standard (Product # LC5800), and iBlot® Dry Blotting System (Product # IB21001). Proteins were transferred to a nitrocellulose membrane and blocked with 5 % skim milk for 1 hour at room temperature. SMAD2 was detected at ~60 kDa using SMAD2 Recombinant Rabbit Monoclonal Antibody (Product # 700048) at 0.5-1 µg/mL in 2.5 % skim milk at 4°C overnight on a rocking platform. Goat anti-Rabbit IgG-HRP Secondary Antibody (Product # G-21234) at 1:5000 dilution was used and chemiluminescent detection was performed using Pierce™ ECL Western blotting Substrate (Product # 32106).

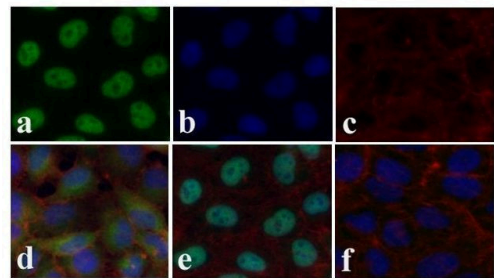


SMAD2 Antibody (700048)

Antibody specificity was demonstrated by siRNA mediated knockdown of the target protein. HeLa cells were transfected with SMAD2 siRNA and decrease in signal intensity was observed in Western blot application (Fig a) using Anti-SMAD2 Recombinant Rabbit Monoclonal Antibody (31H15L4) (Product # 700048). Densitometric analysis of this Western blot is shown in histogram (Fig b). {KD}

SMAD2 Antibody (700048) in ICC/IF

Immunofluorescence analysis of SMAD2 was done on 70% confluent log phase TGF- beta treated HeLa cells (serum starved for 16 hours followed by treatment with 20 ng/mL TGF-beta for 1 hour). The cells were fixed with 4% paraformaldehyde for 15 minutes, permeabilized with 0.25% Triton X-100 for 10 minutes, and blocked with 5% BSA for 1 hour at room temperature. The cells were labeled with SMAD2 Recombinant Rabbit Monoclonal Antibody (Product # 700048) at 1 µg/mL in 1% BSA and incubated for 3 hours at room temperature and then labeled with Alexa Fluor 488 Goat anti-Rabbit IgG Secondary Antibody (Product # A-11008) at a dilution of 1:400 for 30 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with SlowFade Gold Antifade Mountant DAPI (Product # S36938). F-actin (Panel c: red) was stained with Alexa Fluor 594 Phalloidin (Product # A12381). Panel d is an untreated HeLa cells showing cytoplasmic localization. Panel e shows nuclear localization of SMAD2 upon treatment. Panel f is no primary antibody control. The images were captured at 20X magnification.



View more figures on thermofisher.com

Western Blot (3)

<p>Cancers</p> <p>Sulforaphane Inhibits the Expression of Long Noncoding RNA H19 and Its Target APOBEC3G and Thereby Pancreatic Cancer Progression.</p> <p>"Published figure using SMAD2 recombinant monoclonal antibody (Product # 700048) in Western Blot"</p> <p>Authors: Luo Y,Yan B,Liu L,Yin L, Ji H,An X,Gladkich J,Qi Z,De La Torre C,Herr I</p>	<p>Year 2021</p> <p>Species Human</p>
<p>International journal of molecular medicine</p> <p>Evaluation of the inhibitory effect of tacrolimus combined with mycophenolate mofetil on mesangial cell proliferation based on the cell cycle.</p> <p>"Published figure using SMAD2 recombinant monoclonal antibody (Product # 700048) in Western Blot"</p> <p>Authors: Gao Y,Yang H,Wang Y,Tian J,Li R,Zhou X</p>	<p>Year 2020</p> <p>Species Human</p> <p>Dilution 1:200</p>

[View more WB references on thermofisher.com](#)

Immunohistochemistry (Paraffin) (1)

<p>Molecular endocrinology (Baltimore, Md.)</p> <p>FGFR2IIIb-MAPK Activity Is Required for Epithelial Cell Fate Decision in the Lower Müllerian Duct.</p> <p>"Published figure using SMAD2 recombinant monoclonal antibody (Product # 700048) in Immunofluorescence"</p> <p>Authors: Terakawa J,Rocchi A,Serna VA,Bottinger EP,Graff JM,Kurita T</p>	<p>Year 2016</p> <p>Dilution 1:100</p>
--	--

ChIP assay (1)

<p>Developmental cell</p> <p>Long-Range Signaling Activation and Local Inhibition Separate the Mesoderm and Endoderm Lineages.</p> <p>"Published figure using SMAD2 monoclonal antibody (Product # 700048) in ChIP assay"</p> <p>Authors: van Boxtel AL,Economou AD,Heliot C,Hill CS</p>	<p>Year 2018</p> <p>Species Human</p>
--	---

More applications with references on thermofisher.com

Misc (1)

For Research Use Only. Not for use in diagnostic procedures. Not for resale without express authorization. Products are warranted to operate or perform substantially in conformance with published Product specifications in effect at the time of sale, as set forth in the Production documentation, specifications and/or accompanying package inserts ("Documentation"). No claim of suitability for use in applications regulated by FDA is made. The warranty provided herein is valid only when used by properly trained individuals. Unless otherwise stated in the Documentation, this warranty is limited to one year from date of shipment when the Product is subjected to normal, proper and intended usage. This warranty does not extend to anyone other than the Buyer. Any model or sample furnished to Buyer is merely illustrative of the general type and quality of goods and does not represent that any Product will conform to such model or sample. NO OTHER WARRANTIES, EXPRESS OR IMPLIED, ARE GRANTED INCLUDING WITHOUT LIMITATION, IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR NON INFRINGEMENT. BUYER'S EXCLUSIVE REMEDY FOR NON-CONFORMING PRODUCTS DURING THE WARRANTY PERIOD IS LIMITED TO REPAIR, REPLACEMENT OF OR REFUND FOR THE NON-CONFORMING PRODUCT(S) AT SELLER'S SOLE OPTION. THERE IS NO OBLIGATION TO REPAIR, REPLACE OR REFUND FOR PRODUCTS AS THE RESULT OF (I) ACCIDENT, DISASTER OR EVENT OF FORCE MAJEURE, (II) MISUSE, FAULT OR NEGLIGENCE OF OR BY BUYER, (III) USE OF THE PRODUCTS IN A MANNER FOR WHICH THEY WERE NOT DESIGNED, OR (IV) IMPROPER STORAGE AND HANDLING OF THE PRODUCTS. Unless otherwise expressly stated on the Product or in the documentation accompanying the Product, the Product is intended for research only and is not to be used for any other purpose, including without limitation, unauthorized commercial uses, in vitro diagnostic uses, ex vivo or in vivo therapeutic uses, or any type of consumption by or application to human or animals.