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Rabbit Anti-MADH7/Smad7 antibody

SL0566R

Product Name:	MADH7/Smad7
Chinese Name:	Smad7抗体
Alias:	hSMAD 7; hSMAD7; MAD (mothers against decapentaplegic Drosophila) homolog 7; MAD; Mad homolog 7; MAD mothers against decapentaplegic homolog 7; MADH 7; MADH 8; MADH8; Mothers Against Decapentaplegic Drosophila Homolog of 7; Mothers against decapentaplegic homolog 7; Mothers against decapentaplegic homolog 8; Mothers against DPP homolog 7; Mothers against DPP homolog 8; SMA- AND MAD-RELATED PROTEIN 7; SMAD 7; SMAD; SMAD family member 7; SMAD, mothers against DPP homolog 7 (Drosophila); SMAD, mothers against DPP homolog 7; Smad7; SMAD7_HUMAN.
文献引用 PubMed :	**Specific References(3)**|SL0566R has been referenced in 3 publications. **[IF=1.96]**Kou, Wei, et al. "Transforming growth factor-β1 promotes Treg commitment in nasal polyposis after intranasal steroid treatment." Inflammation Research (2013): 1-7.**ELISA;Human**. PubMed:23178794 **[IF=2.31]**Liu, Wei, et al. "Synchronous alteration pattern between Serine-Threonine kinase receptor associated protein and Smad7 in pilocarpine-induced rats of epilepsy." Synapse (2014).**WB;Rat**. PubMed:24577865 **[IF=1.56]**Yang, Yang, et al. "MicroRNA-15a inhibition protects against hypoxia/reoxygenation-induced apoptosis of cardiomyocytes by targeting mothers against decapentaplegic homolog 7." Molecular Medicine Reports (2017).**WB;Rat**. PubMed:28440490
Organism Species:	Rabbit

Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Pig,Cow,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	46kDa
Cellular localization:	The nucleuscytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human Smad7:1-100/426
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The protein encoded by this gene is a nuclear protein that binds the E3 ubiquitin ligase SMURF2. Upon binding, this complex translocates to the cytoplasm, where it interacts with TGF-beta receptor type-1 (TGFBR1), leading to the degradation of both the encoded protein and TGFBR1. Expression of this gene is induced by TGFBR1. Variations in this gene are a cause of susceptibility to colorectal cancer type 3 (CRCS3). Several transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jun 2010] **Function:** Antagonist of signaling by TGF-beta (transforming growth factor) type 1 receptor superfamily members; has been shown to inhibit TGF-beta (Transforming growth factor) and activin signaling by associating with their receptors thus preventing SMAD2 access. Functions as an adapter to recruit SMURF2 to the TGF-beta receptor complex. Also acts by recruiting the PPP1R15A-PP1 complex to TGFBR1, which promotes its dephosphorylation. Positively regulates PDPK1 kinase activity by stimulating its dissociation from the 14-3-3 protein YWHAQ which acts as a negative regulator. **Subunit:** Interacts with WWP1. Interacts with COPS5. Interacts with NEDD4L. Interacts with STAMBP. Interacts with RNF111, AXIN1 and AXIN2. Interacts with PPP1R15A. Interacts (via MH2 domain) with EP300. Interacts with ACVR1B, SMURF1, SMURF2 and TGFBR1; SMAD7 recruits SMURF1 and SMURF2 to the TGF-beta receptor and regulates its degradation. Interacts with PDPK1 (via PH domain). **Subcellular Location:** Nucleus. Cytoplasm. Note=Interaction with NEDD4L or RNF111 or induces translocation from the nucleus to the cytoplasm. TGF-beta stimulates its translocation

from the nucleus to the cytoplasm. PDPK1 inhibits its translocation from the nucleus to the cytoplasm in response to TGF-beta.

Tissue Specificity:
Ubiquitous with higher expression in the lung and vascular endothelium.

Post-translational modifications:
Phosphorylation on Ser-249 does not affect its stability, nuclear localization or inhibitory function in TGFB signaling; however it affects its ability to regulate transcription. Phosphorylated by PDPK1.
Ubiquitinated by WWP1 (By similarity). Polyubiquitinated by RNF111, which is enhanced by AXIN1 and promotes proteasomal degradation. In response to TGF-beta, ubiquitinated by SMURF1; which promotes its degradation.
Acetylation prevents ubiquitination and degradation mediated by SMURF1.

DISEASE:
Genetic variations in SMAD7 influence susceptibility to colorectal cancer type 3 (CRCS3) [MIM:612229]. Colorectal cancer consists of tumors or cancer of either the colon or rectum or both. Cancers of the large intestine are the second most common form of cancer found in males and females. Symptoms include rectal bleeding, occult blood in stools, bowel obstruction and weight loss. Treatment is based largely on the extent of cancer penetration into the intestinal wall. Surgical cures are possible if the malignancy is confined to the intestine. Risk can be reduced when following a diet which is low in fat and high in fiber.

Similarity:
Belongs to the dwarfin/SMAD family.
Contains 1 MH1 (MAD homology 1) domain.
Contains 1 MH2 (MAD homology 2) domain.

SWISS:
O15105

Gene ID:
4092

Database links:

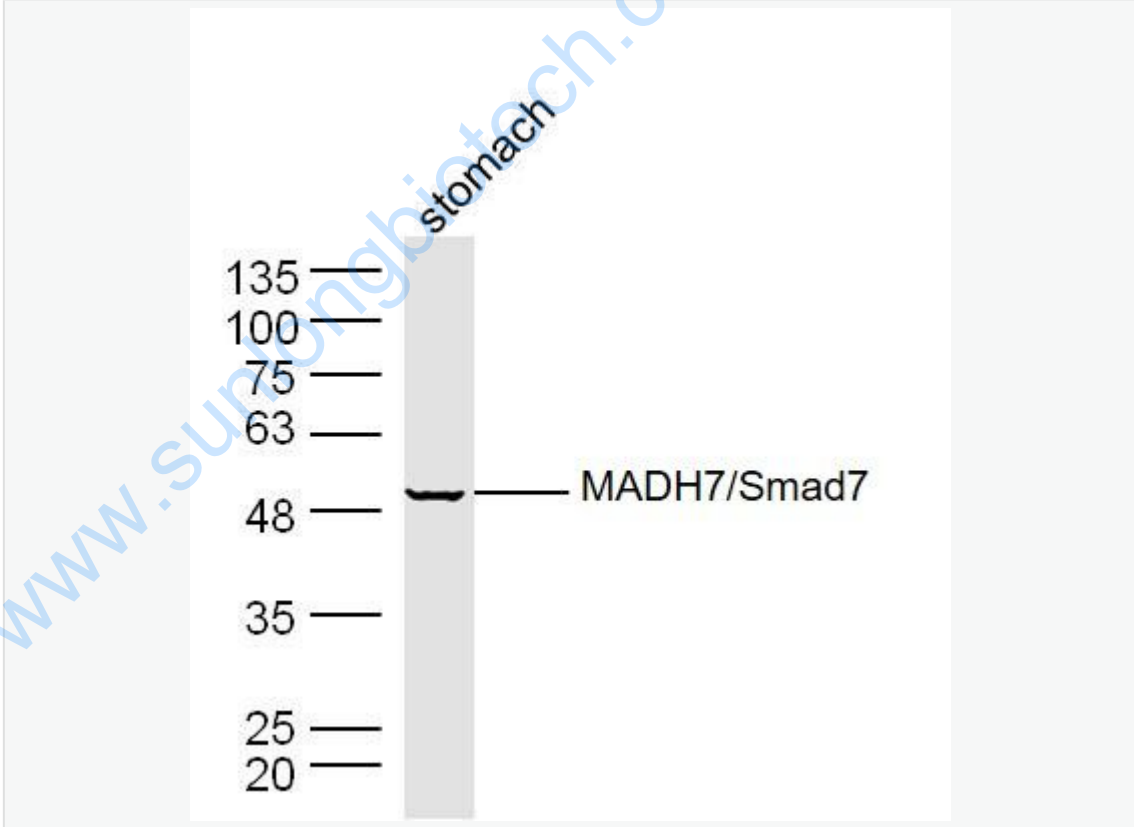
Entrez Gene: 4092Human

Entrez Gene: 17131Mouse

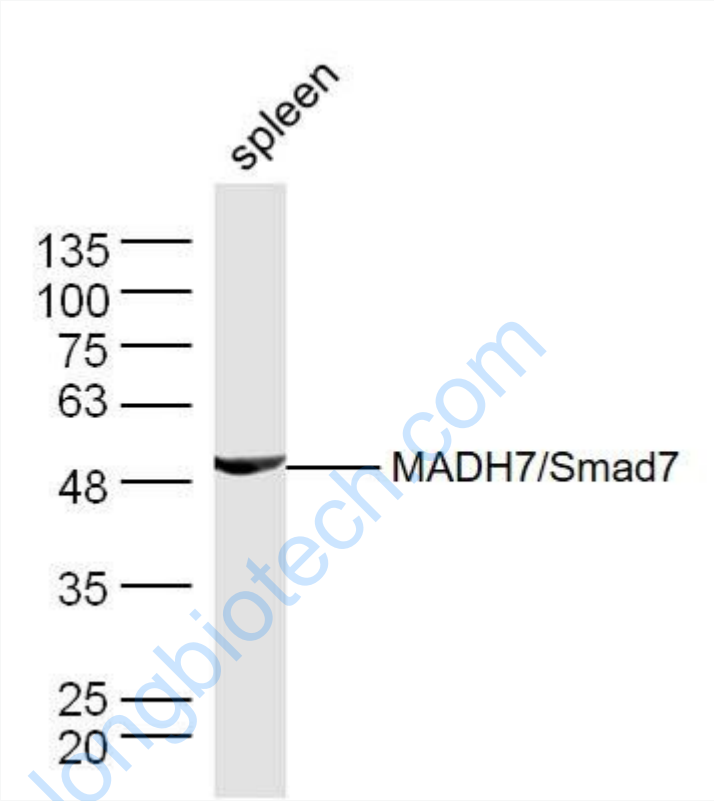
Entrez Gene: 81516Rat

Omim: 602932Human

SwissProt: O15105Human

	SwissProt: O35253Mouse SwissProt: O88406Rat Unigene: 465087Human **Important Note:** This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. transcriptional regulatory factor（Transcriptin Regulators） Smad7是转化生长因子(TGF-β)信号通路的抑制分子，Smad7可干预MAPK信号通路,使ERK和JNK磷酸化活性的平衡失调,导致促增殖作用强于生长抑制作用,从而有助于细胞向恶性方向发展。
Picture:	 Sample:Stomach (Mouse) Lysate at 30 ug Primary: Anti- MADH7/Smad7 (SL0566R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 46 kD

Observed band size: 50 kD



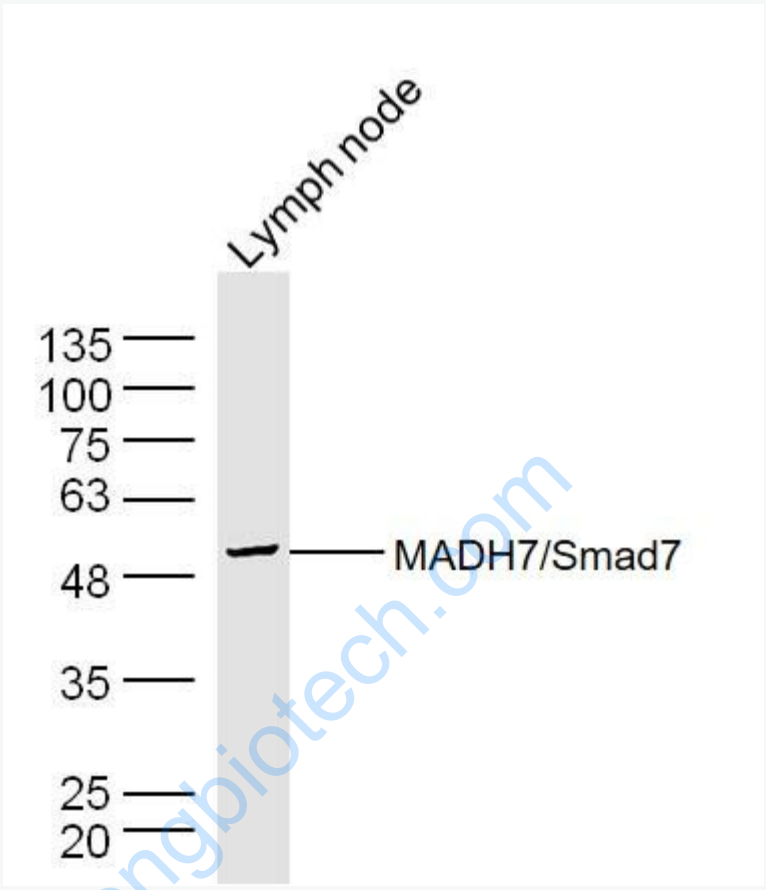
Sample:Spleen(Mouse) Lysate at 30 ug

Primary: Anti- MADH7/Smad7 (SL0566R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 46 kD

Observed band size: 50 kD



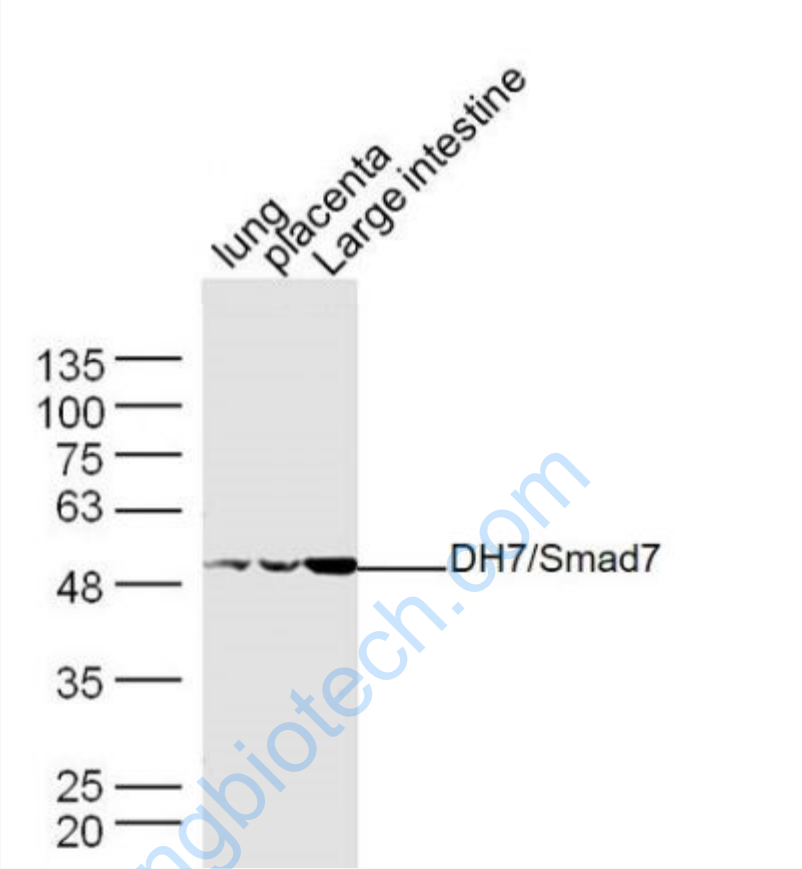
Sample:Lymph node (Mouse) Lysate at 30 ug

Primary: Anti- MADH7/Smad7 (SL0566R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 46 kD

Observed band size: 50 kD



Sample:

Lung(Mouse) Lysate at 30 ug

Placenta(Mouse) Lysate at 30 ug

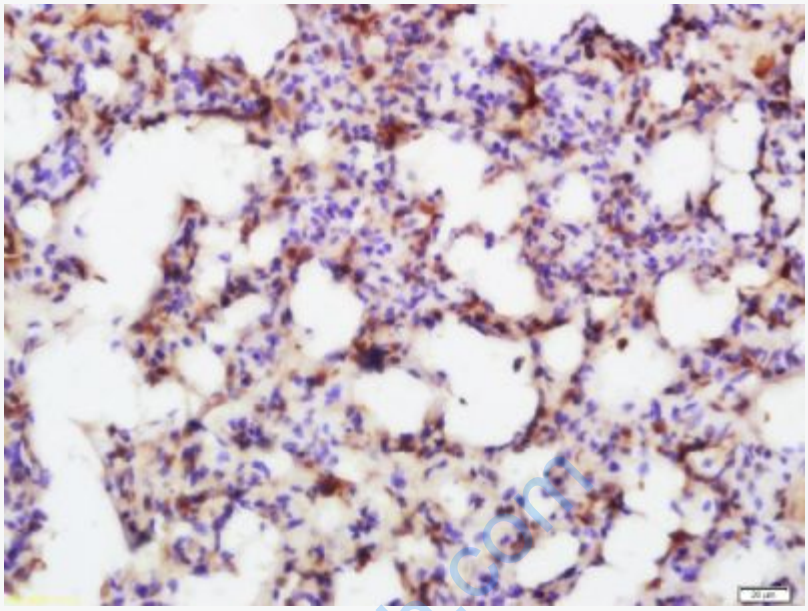
Large intestine(Mouse) Lysate at 30 ug

Primary: Anti- MADH7/Smad7 (SL0566R) at 1/300 dilution

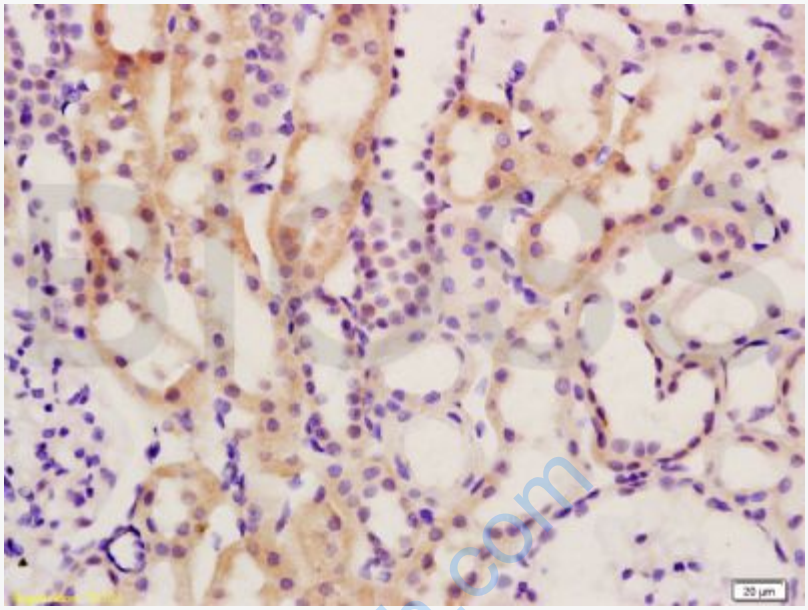
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 46 kD

Observed band size: 50 kD



Paraformaldehyde-fixed, paraffin embedded (rat lung); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Smad7) Polyclonal Antibody, Unconjugated (SL0566R) at 1:600 overnight at 4°C, followed by a conjugated secondary (sp-0023) for 20 minutes and DAB staining.



Tissue/cell: rat kidney tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-Smad7/Smad6 Polyclonal Antibody, Unconjugated(SL0566R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining