Product Datasheet

Smad3 [p Thr179] Antibody - BSA Free
NBP2-19126

Unit Size: 0.1 mg

Store at -20C short term. Aliquot and store at -80C long term. Avoid freeze-thaw cycles.

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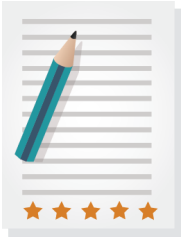
Updated 2/23/2025 v.20.1



NBP2-19126

Smad3 [p Thr179] Antibody - BSA Free

Product Information

Unit Size	0.1 mg
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C short term. Aliquot and store at -80C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.01% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2

Product Description

Description	This antibody is directed against the phosphorylated form of human Smad3 protein at the [p Thr179] residue. The product 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 Store vial at -20C prior to opening. Aliquot contents and freeze at -20C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4C as an undiluted liquid. Dilute only prior to immediate use.
Host	Rabbit
Gene ID	4088
Gene Symbol	SMAD3
Species	Human, Mouse
Reactivity Notes	A BLAST analysis was used to suggest cross reactivity with Smad3 from human, mouse, rat, pig, dog, and marmoset based on 100% sequence homology with the immunogen. Reactivity against homologues from other sources is not known.
Specificity/Sensitivity	Anti-SMAD3 pT179 affinity-purified antibody is directed against the phosphorylated form of human Smad3 protein at the pT179 residue. The resultant affinity purified antibody was then cross adsorbed against the non-phosphorylated form of the immunizing peptide. Reactivity occurs against human Smad3 pT179 protein and the antibody is specific for the phosphorylated form of the protein. Reactivity with non-phosphorylated human Smad3 is minimal by ELISA and western blot. Expect reactivity against phosphorylated Smad2. Reactivity against other phosphorylated Smad family members is not known. A BLAST analysis was used to suggest cross reactivity with Smad3 from human, mouse, rat, pig, dog, and marmoset based on 100% sequence homology with the immunogen. Reactivity against homologues from other sources is not known.
Immunogen	Smad3 [p Thr179] Antibody was prepared by repeated immunizations with a synthetic peptide corresponding to an internal region of human Smad3 protein surrounding amino acid residue 179. (Uniprot: P84022)

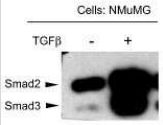
Product Application Details

Applications	Western Blot, ELISA, Immunohistochemistry, Immunohistochemistry-Paraffin

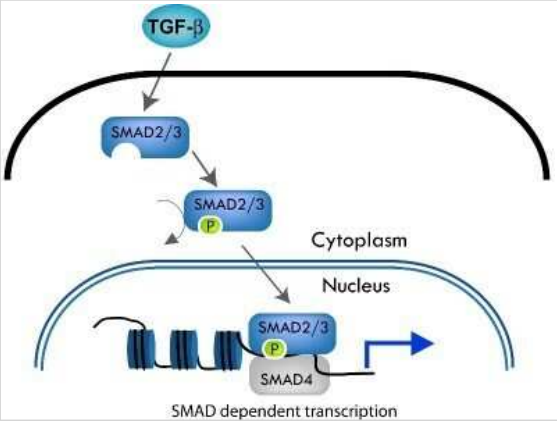
Recommended Dilutions	Western Blot 1:1000, ELISA 1:15000-1:75000, Immunohistochemistry, Immunohistochemistry-Paraffin
Application Notes	This product has been tested for use in ELISA and by western blot, and suitable by immunohistochemistry. Specific conditions for reactivity should be optimized by the end user. Expect a band approximately 48.1 kDa in size corresponding to human phosphorylated Smad3 protein by western blotting in the appropriate stimulated tissue or cell lysate or extract. Use in Immunohistochemistry paraffin reported in scientific literature (PMID 28706886).

Images

Western Blot: Smad3 [p Thr179] Antibody [NBP2-19126] - NMuMG mouse mammary epithelial cells were probed for the activation of Smad3 by detecting phosphorylation of threonine 179. The cells were either untreated or treated with TGF-beta, transferred to membranes and probed with Anti-SMAD3 pT179 Antibody. The antibody detects only Smad3 in stimulated cells suggesting detection of phosphorylated SMAD3 at T179.



ELISA: Smad3 [p Thr179] Antibody [NBP2-19126] - The SMAD pathway follows the canonical TGF- Beta signaling pathway. TGF- Beta dimers bind to a receptor thereby activating the pathway. The type I receptor then recruits and phosphorylates a receptor regulated SMAD.i.e. SMAD2 or SMAD3. The R-SMAD then binds to the common SMAD i.e. SMAD4, and forms a heterodimeric complex. This complex then enters the cell nucleus and acts as a transcription factor.



Publications

Wu X, Wang H, Chen H et al. Overexpression of smad7 inhibits the TGF-beta/Smad signaling pathway and EMT in NPHP1-defective MDCK cells Biochem Biophys Res Commun 2021-12-10 [PMID: 34689106] (WB, ICC/IF)

Ryu JH, Park H, Kim SJ. The effects of indoxyl sulfate-induced endothelial microparticles on neointimal hyperplasia formation in an ex vivo model Ann Surg Treat Res 2017-07-01 [PMID: 28706886] (IHC-P, Human)

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Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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