

SMAD3-S208 Antibody
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP9995a**Specification**

SMAD3-S208 Antibody - Product Information

| | |
|-------------------|---|
| Application | IF, WB, IHC-P, FC,E |
| Primary Accession | P84022 |
| Other Accession | P84025 , P84024 , Q8BUN5 , P84023 |
| Reactivity | Human, Mouse |
| Predicted | Chicken, Pig, Rat |
| Host | Rabbit |
| Clonality | Polyclonal |
| Isotype | Rabbit IgG |
| Antigen Region | 186-215 |

SMAD3-S208 Antibody - Additional Information**Gene ID** 4088**Other Names**

Mothers against decapentaplegic homolog 3, MAD homolog 3, Mad3, Mothers against DPP homolog 3, hMAD-3, JV15-2, SMAD family member 3, SMAD 3, Smad3, hSMAD3, SMAD3, MADH3

Target/Specificity

This SMAD3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 186-215 amino acids from human SMAD3.

DilutionIF~~1:10~50
WB~~1:1000
IHC-P~~1:10~50
FC~~1:10~50**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

SMAD3-S208 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

SMAD3-S208 Antibody - Protein Information

Name SMAD3

Synonyms MADH3

Function Receptor-regulated SMAD (R-SMAD) that is an intracellular signal transducer and transcriptional modulator activated by TGF-beta (transforming growth factor) and activin type 1 receptor kinases. Binds the TRE element in the promoter region of many genes that are regulated by TGF-beta and, on formation of the SMAD3/SMAD4 complex, activates transcription. Also can form a SMAD3/SMAD4/JUN/FOS complex at the AP-1/SMAD site to regulate TGF-beta-mediated transcription. Has an inhibitory effect on wound healing probably by modulating both growth and migration of primary keratinocytes and by altering the TGF-mediated chemotaxis of monocytes. This effect on wound healing appears to be hormone-sensitive. Regulator of chondrogenesis and osteogenesis and inhibits early healing of bone fractures. Positively regulates PDPK1 kinase activity by stimulating its dissociation from the 14-3-3 protein YWHAQ which acts as a negative regulator.

Cellular Location

Cytoplasm. Nucleus. Note=Cytoplasmic and nuclear in the absence of TGF-beta. On TGF-beta stimulation, migrates to the nucleus when complexed with SMAD4 (PubMed:15799969, PubMed:21145499). Through the action of the phosphatase PPM1A, released from the SMAD2/SMAD4 complex, and exported out of the nucleus by interaction with RANBP1 (PubMed:16751101, PubMed:19289081). Co-localizes with LEMD3 at the nucleus inner membrane (PubMed:15601644). MAPK-mediated phosphorylation appears to have no effect on nuclear import (PubMed:19218245). PDPK1 prevents its nuclear translocation in response to TGF-beta (PubMed:17327236). Localized mainly to the nucleus in the early stages of embryo development with expression becoming evident in the cytoplasm of the inner cell mass at the blastocyst stage (By similarity) {ECO:0000250|UniProtKB:Q8BUN5, ECO:0000269|PubMed:15601644, ECO:0000269|PubMed:15799969, ECO:0000269|PubMed:16751101, ECO:0000269|PubMed:17327236, ECO:0000269|PubMed:19218245, ECO:0000269|PubMed:19289081, ECO:0000269|PubMed:21145499}

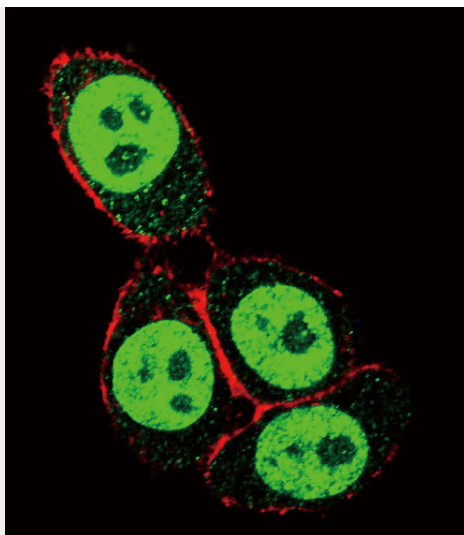
SMAD3-S208 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

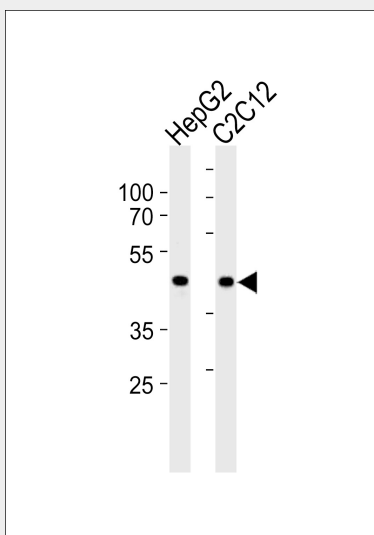
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SMAD3-S208 Antibody - Images

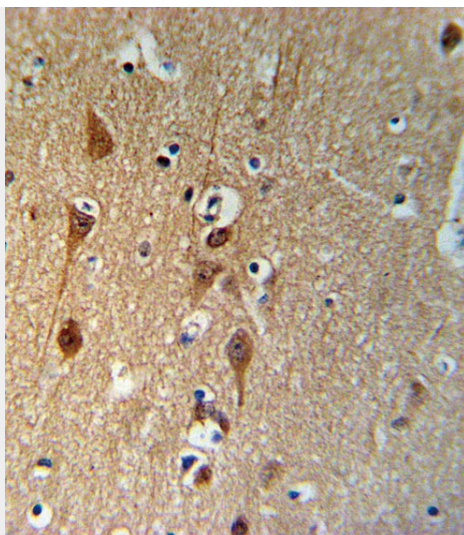




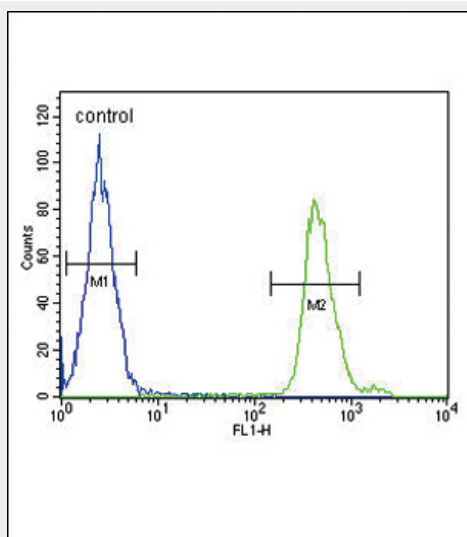
Confocal immunofluorescent analysis of SMAD3-S208 Antibody(Cat#AP9995a) with HeLa cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). Actin filaments have been labeled with Alexa Fluor 555 phalloidin (red).



SMAD3 Antibody (S208) (Cat. #AP9995a) western blot analysis in HepG2 and mouse C2C12 cell line lysates (35ug/lane). This demonstrates the SMAD3 antibody detected the SMAD3 protein (arrow).



SMAD3-S208 Antibody (cat. #AP9995a) IHC analysis in formalin fixed and paraffin embedded brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the SMAD3-S208 Antibody for immunohistochemistry. Clinical relevance has not been evaluated.



SMAD3-S208 Antibody (Cat. #AP9995a) flow cytometric analysis of MDA-MB231 cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

SMAD3-S208 Antibody - Background

SMAD3 belongs to the SMAD, a family of proteins similar to the gene products of the *Drosophila* gene 'mothers against decapentaplegic' (Mad) and the *C. elegans* gene Sma. SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. This protein functions as a transcriptional modulator activated by transforming growth factor-beta and is thought to play a role in the regulation of carcinogenesis.

SMAD3-S208 Antibody - References

Zhang, M., et al. *J. Biol. Chem.* 285(12):8703-8710(2010)
Daly, A.C., et al. *J. Biol. Chem.* 285(9):6489-6497(2010)
Heikkinen, P.T., et al. *J. Biol. Chem.* 285(6):3740-3749(2010)

Tseng, Z.H., et al. Heart Rhythm 6(12):1745-1750(2009)

SMAD3-S208 Antibody - Citations

- [The let-7g microRNA promotes follicular granulosa cell apoptosis by targeting transforming growth factor- \$\beta\$ type 1 receptor.](#)
- [Resistance to aerobic exercise training causes metabolic dysfunction and reveals novel exercise-regulated signaling networks.](#)