

## Product datasheet for **AM20332PU-N**

### SMAD3 Mouse Monoclonal Antibody [Clone ID: AF9F7]

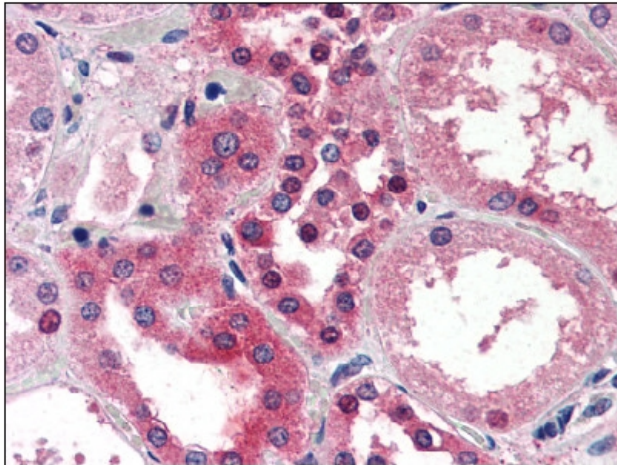
#### Product data:

Product Type:	Primary Antibodies
Clone Name:	AF9F7
Applications:	ELISA, IHC, IP, WB
Recommended Dilution:	<b>ELISA.</b> <b>Immunohistochemistry on Paraffin Sections:</b> 1/50. <b>Immunoprecipitation.</b> <b>Western Blot:</b> 1/1000.
Reactivity:	Human, Mouse, Rat
Host:	Mouse
Isotype:	IgG1
Clonality:	Monoclonal
Immunogen:	Recombinant Human protein purified from E. coli (His-Smad3)
Specificity:	This antibody detects SMAD3.
Formulation:	HEPES with 0.15M NaCl, 0.01% BSA, 0.03% Sodium Azide and 50% Glycerol State: Purified State: Liquid purified Ig fraction
Concentration:	lot specific
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	SMAD family member 3
Database Link:	<u><a href="#">Entrez Gene 17127 Mouse</a></u> <u><a href="#">Entrez Gene 25631 Rat</a></u> <u><a href="#">Entrez Gene 4088 Human P84022</a></u>



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- Background:** Smad3 (also known as Mothers against decapentaplegic homolog 3 Mothers against DPP homolog 3, Mad3, hMAD-3, JV15-2 or hSMAD3) is a transcriptional modulator activated by TGF-beta (transforming growth factor) and activin type 1 receptor kinase. These activators exert diverse effects on a wide array of cellular processes. The Smad proteins mediate much of the signaling responses induced by the TGF-b superfamily. Briefly, activated type I receptor phosphorylates receptor-activated Smads (R-Smads) at their c-terminal two extreme serines in the SSXS motif, e.g. Smad2 and Smad3 proteins in the TGF-b pathway, or Smad1, Smad5 or Smad8 in the BMP pathway. Then the phosphorylated R-Smad translocated into nucleus, where they regulate transcription of target genes. Based on microarray and animal model experiments, Smad3 accounts for at least 80% of all TGF-b-mediated response.
- Synonyms:** SMAD family member 3, SMAD 3, SMAD-3, Mad3, MAD-3, MADH3, MAD homolog 3, JV15-2
- Protein Families:** Cancer stem cells, Druggable Genome, Embryonic stem cells, ES Cell Differentiation/IPS, Stem cell relevant signaling - JAK/STAT signaling pathway, Stem cell relevant signaling - TGFb/BMP signaling pathway, Transcription Factors
- Protein Pathways:** Adherens junction, Cell cycle, Chronic myeloid leukemia, Colorectal cancer, Pancreatic cancer, Pathways in cancer, TGF-beta signaling pathway, Wnt signaling pathway

**Product images:**

AM20332PU-N SMAD3 antibody staining of Formalin-Fixed, Paraffin-Embedded Human Kidney at 1/50 followed by biotinylated anti-mouse IgG secondary antibody, alkaline phosphatase-streptavidin and chromogen.