

## Product datasheet for **AP09377PU-N**

### SMAD4 Rabbit Polyclonal Antibody

#### Product data:

|                       |  |
|-----------------------|--|
| Product Type:         | Primary Antibodies   |
| Applications:         | ELISA, WB  |
| Recommended Dilution: | ELISA: 1/15,000 - 1/60,000.<br>Western Blot: 1/500 - 1/2,000.  |
| Reactivity:           | Human, Mouse, Xenopus  |
| Host:                 | Rabbit   |
| Isotype:              | IgG  |
| Clonality:            | Polyclonal   |
| Immunogen:            | Synthetic peptide corresponding to a region near the carboxy terminus of human SMAD4 protein   |
| Specificity:          | This antibody is directed against SMAD4 protein.   |
| Formulation:          | 0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2 containing 0.01% (w/v) Sodium Azide<br>State: Aff - Purified<br>State: Liquid purified Ig |
| Concentration:        | lot specific   |
| Purification:         | Affinity chromatography  |
| Conjugation:          | Unconjugated   |
| Storage:              | Store the antibody at -20°C.<br>Avoid repeated freezing and thawing.   |
| Stability:            | Shelf life: one year from despatch.  |
| Gene Name:            | SMAD family member 4   |
| Database Link:        | <a href="#">Entrez Gene 4089 Human Q13485</a>  |



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**Background:**

SMAD4 (also known as Mothers against decapentaplegic homolog 4, Mothers against DPP homolog 4, deletion target in pancreatic carcinoma 4 and hSMAD4) is a common mediator of signal transduction by TGF-beta (transforming growth factor), but is also involved in cancer development and metastases as a tumor suppressor. SMAD4 promotes binding of the SMAD2/SMAD4/FAST-1 complex to DNA and provides an activation function required for SMAD1 or SMAD2 to stimulate transcription. SMAD4 may form trimers with receptor-regulated SMAD (R-SMAD) and interacts with ATF2, COPS5, DACH1, MSG1, SKI and TRIM33. In the absence of ligand SMAD4 is found in the cytoplasm, but when complexed with R-SMAD, translocates to the nucleus. Defects in SMAD4 are a cause of pancreatic carcinoma and juvenile polyposis syndrome (JPS), a syndrome in which patients are at risk for developing gastrointestinal cancers.

**Synonyms:**

SMAD family member 4, SMAD-4, SMAD 4, MADH4, MAD homolog 4, DPC4

**Product images:**

Western blot using affinity purified anti-SMAD4 to detect over-expressed SMAD4 in transfected COS cells (lane 2). Lane 1 contains lysate from mock transfected COS cells. A doublet band is seen in the SMAD4 transfected lysate with the upper band (arrowhead) representing SMAD4 and the lower band being non-specific staining. The membrane was probed with tprimary antibody at a 1:1,000 dilution.