

## Product datasheet for **AP08024PU-S**

### SMAD1 pSer465 Rabbit Polyclonal Antibody

#### Product data:

|                       |   |
|-----------------------|---|
| Product Type:         | Primary Antibodies  |
| Applications:         | WB  |
| Recommended Dilution: | Western Blot (1/500-1/1000).  |
| Reactivity:           | Human, Mouse, Rat   |
| Host:                 | Rabbit  |
| Clonality:            | Polyclonal  |
| Immunogen:            | The antiserum was produced against synthesized phosphopeptide derived from Human Smad1 around the phosphorylation site of Serine 465 (I-S-S-V-SP).  |
| Specificity:          | SMAD1 (Phospho-Ser465) Antibody AP08024PU detects endogenous levels of Smad1 only when phosphorylated at Serine 465.  |
| Formulation:          | PBS (without Mg <sup>2+</sup> and Ca <sup>2+</sup> ), pH 7.4, 150 mM NaCl, 0.02% Sodium Azide and 50% Glycerol.<br>State: Aff - Purified<br>State: Liquid purified Ig fraction.   |
| Concentration:        | lot specific  |
| Purification:         | Immunoaffinity Chromatography: The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific phosphopeptide. The antibody against non-phosphopeptide was removed by chromatography using non-phosphopeptide corresponding to the phosphorylation site. |
| Conjugation:          | Unconjugated  |
| Storage:              | Store the antibody (in aliquots) at -20°C.<br>Avoid repeated freezing and thawing.  |
| Stability:            | Shelf life: One year from despatch.   |
| Gene Name:            | SMAD family member 1  |
| Database Link:        | <a href="#">Entrez Gene 4086 Human Q15797</a>   |



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**Background:**

SMAD proteins are signal transducers and transcriptional modulators that mediate multiple signaling pathways. SMAD1, as a transcriptional modulator, is activated by BMP (Bone Morphogenetic Protein) type 1 receptor kinase (it is a receptor-regulated SMAD or R-SMAD). BMPs are involved in a range of biological activities including cell growth, apoptosis, morphogenesis, development and immune responses. SMAD proteins have been implicated as downstream effectors of TGF beta/BMP signaling. In response to BMP ligands, SMAD1 can be phosphorylated (other sites besides the most prominent of S206, are S187, S195, and S214). S-206 is phosphorylated by ERK in response to mitogenic growth factors, or by recombinant ERK in vitro; this can be tested by treating cells with EGF or in cancer cells where Ras is activated. The phosphorylated form of this protein forms a complex with SMAD4, which is important for its function in the transcription regulation. This protein is also a target for SMAD-specific E3 ubiquitin ligases, such as SMURF1 and SMURF2, and undergoes ubiquitination and proteasome-mediated degradation.

**Synonyms:**

SMAD family member 1, SMAD-1, SMAD 1, MADH1, MAD homolog 1, MADR1, Mad-related protein 1, BSP1, BSP-1, JV4-1

**Note:**

Molecular Weight: 55 kDa

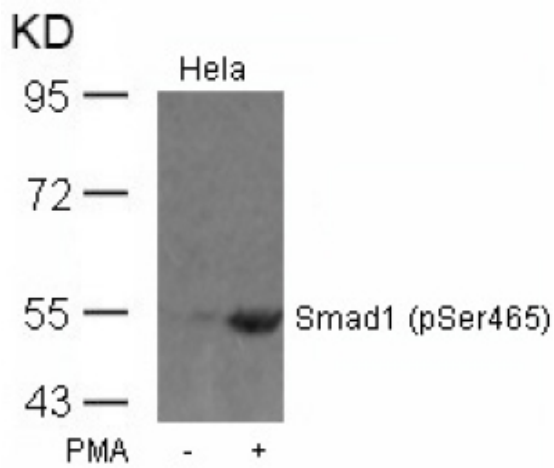
**Product images:**

Figure 1. Western blot analysis of extract from HeLa cells untreated or treated with PMA using SMAD1 Antibody (Phospho-Ser465)