

**Anti-Phospho-Smad1/5/9 (S463/S465/S467) Rabbit Monoclonal Antibody**  
Catalog # ABO13193**Specification****Anti-Phospho-Smad1/5/9 (S463/S465/S467) Rabbit Monoclonal Antibody - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | WB                     |
| Primary Accession | <a href="#">Q99717</a> |
| Host              | Rabbit                 |
| Isotype           | Rabbit IgG             |
| Reactivity        | Rat, Human, Mouse      |
| Clonality         | Monoclonal             |
| Format            | Liquid                 |

**Description**

Anti-Phospho-Smad1/5/9 (S463/S465/S467) Rabbit Monoclonal Antibody . Tested in WB application. This antibody reacts with Human, Mouse, Rat.

**Anti-Phospho-Smad1/5/9 (S463/S465/S467) Rabbit Monoclonal Antibody - Additional Information**

**Gene ID** 4090

**Other Names**

Mothers against decapentaplegic homolog 5, MAD homolog 5, Mothers against DPP homolog 5, JV5-1, SMAD family member 5, SMAD 5, Smad5, hSmad5, SMAD5, MADH5

**Calculated MW**

52258 MW KDa

**Application Details**

WB 1:500-1:1000

**Subcellular Localization**

Cytoplasm. Nucleus. Cytoplasmic in the absence of ligand. Migrates to the nucleus when complexed with SMAD4.

**Tissue Specificity**

Ubiquitous.

**Contents**

Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.

**Immunogen**

A synthesized peptide derived from human Phospho-Smad1/5/9

**Purification**

Affinity-chromatography

**Storage**

Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

**Anti-Phospho-Smad1/5/9 (S463/S465/S467) Rabbit Monoclonal Antibody - Protein Information**

**Name** SMAD5

**Synonyms** MADH5

**Function**

Transcriptional regulator that plays a role in various cellular processes including embryonic development, cell differentiation, angiogenesis and tissue homeostasis (PubMed:<a href="http://www.uniprot.org/citations/12064918" target="\_blank">12064918</a>, PubMed:<a href="http://www.uniprot.org/citations/16516194" target="\_blank">16516194</a>). Upon BMP ligand binding to their receptors at the cell surface, is phosphorylated by activated type I BMP receptors (BMPRI) and associates with SMAD4 to form an heteromeric complex which translocates into the nucleus acting as transcription factor (PubMed:<a href="http://www.uniprot.org/citations/9442019" target="\_blank">9442019</a>). In turn, the hetero-trimeric complex recognizes cis- regulatory elements containing Smad Binding Elements (SBEs) to modulate the outcome of the signaling network (PubMed:<a href="http://www.uniprot.org/citations/33510867" target="\_blank">33510867</a>). Non-phosphorylated SMAD5 has a cytoplasmic role in energy metabolism regulation by promoting mitochondrial respiration and glycolysis in response to cytoplasmic pH changes (PubMed:<a href="http://www.uniprot.org/citations/28675158" target="\_blank">28675158</a>). Mechanistically, interacts with hexokinase 1/HK1 and thereby accelerates glycolysis (PubMed:<a href="http://www.uniprot.org/citations/28675158" target="\_blank">28675158</a>).

**Cellular Location**

Cytoplasm. Nucleus Mitochondrion. Note=Cytoplasmic in the absence of ligand. Migrates to the nucleus when complexed with SMAD4

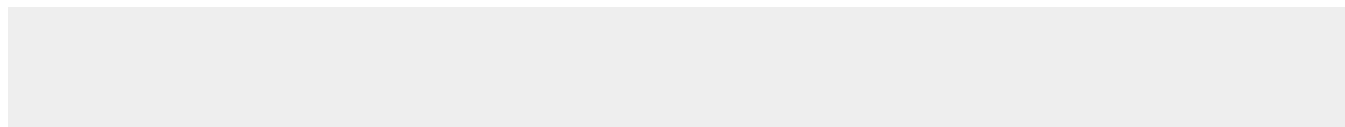
**Tissue Location**

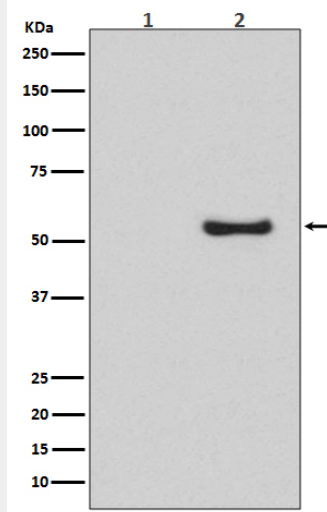
Ubiquitous.

**Anti-Phospho-Smad1/5/9 (S463/S465/S467) Rabbit Monoclonal 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](#)

**Anti-Phospho-Smad1/5/9 (S463/S465/S467) Rabbit Monoclonal Antibody - Images**



Western blot analysis of Phospho-Smad5 (S463/S465) expression in (1) HeLa cell lysate; (2) HeLa cell treated with BMP-4 lysate.