

Phospho-Smad1/5/9 (S463/S465/S467) (11L16) Rabbit Monoclonal Antibody
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Catalog # AP93680

Specification

Phospho-Smad1/5/9 (S463/S465/S467) (11L16) Rabbit Monoclonal Antibody - Product Information

| | |
|-------------------|------------------------|
| Application | WB |
| Primary Accession | Q99717 |
| Reactivity | Rat, Human, Mouse |
| Clonality | Monoclonal |
| Calculated MW | 52258 |

Phospho-Smad1/5/9 (S463/S465/S467) (11L16) 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

Dilution

WB~~1:1000

Storage Conditions

-20°C

Phospho-Smad1/5/9 (S463/S465/S467) (11L16) Rabbit Monoclonal Antibody - Protein Information

Name SMAD5 ([HGNC:6771](#))

Synonyms MADH5

Function

Transcriptional regulator that plays a role in various cellular processes including embryonic development, cell differentiation, angiogenesis and tissue homeostasis (PubMed:[12064918](http://www.uniprot.org/citations/12064918)), PubMed:[16516194](http://www.uniprot.org/citations/16516194)). 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 a heteromeric complex which translocates into the nucleus acting as transcription factor (PubMed:[9442019](http://www.uniprot.org/citations/9442019)). In turn, the hetero-trimeric complex recognizes cis- regulatory elements containing Smad Binding Elements (SBEs) to modulate the outcome of the signaling network (PubMed:[33510867](http://www.uniprot.org/citations/33510867)). Non-phosphorylated SMAD5 has a cytoplasmic role in energy metabolism regulation by promoting

mitochondrial respiration and glycolysis in response to cytoplasmic pH changes (PubMed:28675158). Mechanistically, interacts with hexokinase 1/HK1 and thereby accelerates glycolysis (PubMed:28675158).

Cellular Location

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

Tissue Location

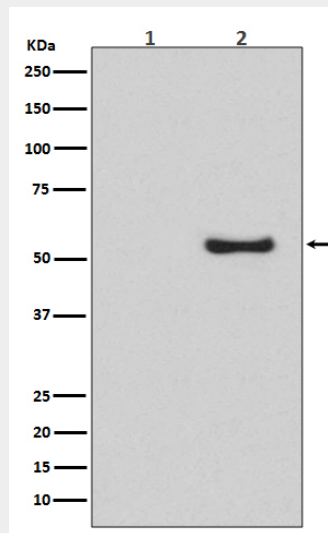
Ubiquitous.

Phospho-Smad1/5/9 (S463/S465/S467) (11L16) 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](#)

Phospho-Smad1/5/9 (S463/S465/S467) (11L16) 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.