

Phospho-Smad5 (S463/465) (4Q4) Rabbit Monoclonal Antibody
Phospho-Smad5 (S463/465) (4Q4) Rabbit Monoclonal Antibody
Catalog # AP93649**Specification****Phospho-Smad5 (S463/465) (4Q4) Rabbit Monoclonal Antibody - Product Information**

Application	WB, IHC, IF, ICC
Primary Accession	Q99717
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Calculated MW	52258

Phospho-Smad5 (S463/465) (4Q4) 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
IHC~~1:100~500
IF~~1:50~200
ICC~~N/A

Storage Conditions

-20°C

Phospho-Smad5 (S463/465) (4Q4) 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:12064918, PubMed: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). 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). 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

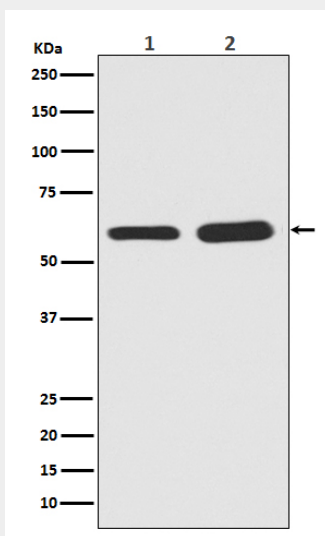
Ubiquitous.

Phospho-Smad5 (S463/465) (4Q4) 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-Smad5 (S463/465) (4Q4) Rabbit Monoclonal Antibody - Images



Western blot analysis of Phospho-Smad5 in (1) Mouse brain tissue lysate; (2) Rat brain tissue lysate.