

# Phospho-Smad5 (Ser463/465) Rabbit mAb

Catalog # AP78566

## Product Information

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Primary Accession	<a href="#">Q99717</a>
Host	Rabbit
Clonality	Monoclonal Antibody
Calculated MW	52258

## Additional Information

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Gene ID	4090
Other Names	SMAD5
Format	Liquid
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

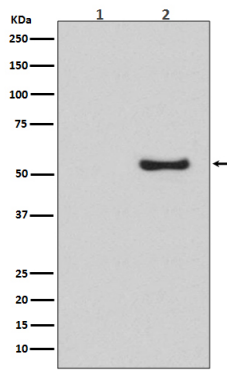
## Protein Information

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Name	SMAD5 ( <a href="#">HGNC:6771</a> )
Synonyms	MADH5
Function	<p>Transcriptional regulator that plays a role in various cellular processes including embryonic development, cell differentiation, angiogenesis and tissue homeostasis (PubMed:<a href="#">12064918</a>, PubMed:<a href="#">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 a heteromeric complex which translocates into the nucleus acting as transcription factor (PubMed:<a href="#">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="#">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="#">28675158</a>). Mechanistically, interacts with hexokinase 1/HK1 and thereby accelerates glycolysis (PubMed:<a href="#">28675158</a>).</p>
Cellular Location	Cytoplasm. Nucleus Mitochondrion. Note=Cytoplasmic in the absence of ligand. Migrates to the nucleus when complexed with SMAD4
Tissue Location	Ubiquitous.

# Images

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