

# Phospho-Smad5 (Ser463/465) Rabbit mAb

Catalog # AP77374

## Product Information

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<b>Application</b>	WB, IHC-P, IF, ICC
<b>Primary Accession</b>	<a href="#">Q99717</a>
<b>Reactivity</b>	Rat, Human, Mouse
<b>Host</b>	Rabbit
<b>Clonality</b>	Monoclonal Antibody
<b>Isotype</b>	IgG
<b>Conjugate</b>	Unconjugated
<b>Immunogen</b>	A synthesized peptide derived from human Phospho-Smad5 (S463/465)
<b>Purification</b>	Affinity Chromatography
<b>Calculated MW</b>	52258

## Additional Information

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<b>Gene ID</b>	4090
<b>Other Names</b>	SMAD5
<b>Dilution</b>	WB~~1/500-1/1000 IHC-P~~N/A IF~~1:50~200 ICC~~N/A
<b>Format</b>	Liquid in 10mM PBS, pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02% sodium azide and 50% glycerol.
<b>Storage</b>	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

## Protein Information

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<b>Name</b>	SMAD5 ( <a href="#">HGNC:6771</a> )
<b>Synonyms</b>	MADH5
<b>Function</b>	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:[28675158](#)).

**Cellular Location**

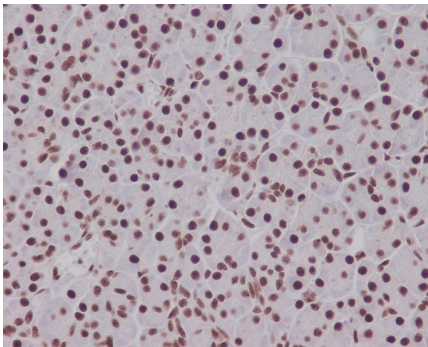
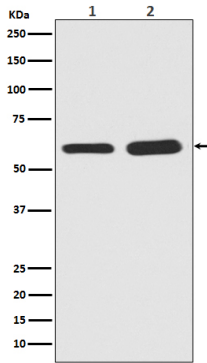
Cytoplasm. Nucleus Mitochondrion. Note=Cytoplasmic in the absence of ligand. Migrates to the nucleus when complexed with SMAD4

**Tissue Location**

Ubiquitous.

**Images**

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