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Phospho-Smad5 (Ser463/465) Rabbit mAb

Catalog # AP77374

Product Information

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

Additional Information

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

Protein Information

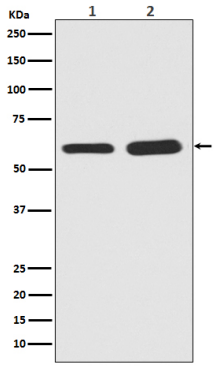
Name	SMAD5 (HGNC:6771)
Synonyms	MADH5
Function	Transcriptional regulator that plays a role in various cellular processes including embryonic development, cell differentiation, angiogenesis and tissue homeostasis (PubMed:12064918, PubMed:16516194). Upon BMP ligand binding to their receptors at the cell surface, is phosphorylated by activated type I BMP receptors (BMPRIs) 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

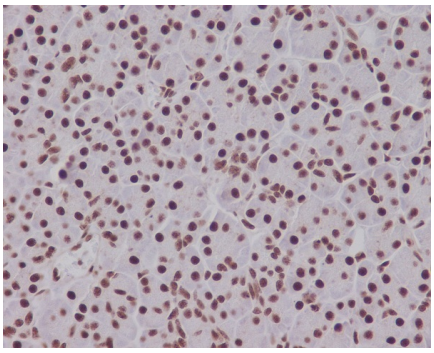
with hexokinase 1/HK1 and thereby accelerates glycolysis (PubMed:28675158).

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

Tissue Location Ubiquitous.

Images





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