

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

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|--------------------|--|
| 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

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|-----------------|--|
| 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](#)).

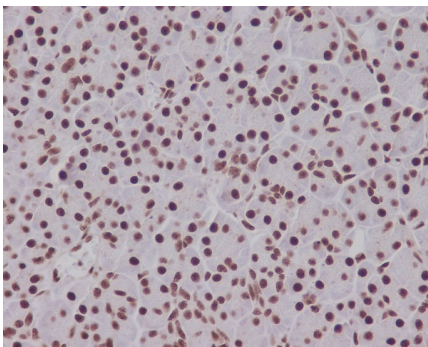
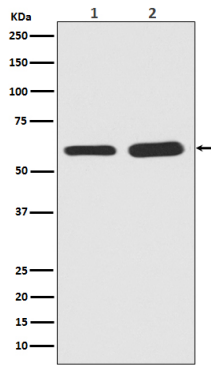
Cellular Location

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

Tissue Location

Ubiquitous.

Images



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