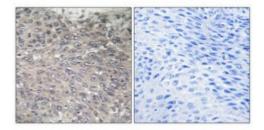


Anti-Phospho-IP3R-I (S1598) antibody





Description Rabbit polyclonal to Phospho-IP3R-I (S1598).

Model STJ91314

Host Rabbit

Reactivity Human, Mouse, Rat

Applications ELISA, IF, IHC

Immunogen Synthesized peptide derived from human IP3R-I around the phosphorylation

site of S1598.

Immunogen Region 1540-1620 aa

Gene ID $\underline{3708}$

Gene Symbol ITPR1

Dilution range IHC 1:100-1:300IF 1:200-1:1000ELISA 1:10000

Specificity Phospho-IP3R-I (S1598) Polyclonal Antibody detects endogenous levels of

IP3R-I protein only when phosphorylated at S1598.

Tissue Specificity Widely expressed.

Purification The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Inositol 1,4,5-trisphosphate receptor type 1 IP3 receptor isoform 1 IP3R 1

InsP3R1 Type 1 inositol 1,4,5-trisphosphate receptor Type 1 InsP3 receptor

Molecular Weight 313.945 kDa

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Concentration 1 mg/ml

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links <u>HGNC:6180OMIM:117360</u>

Alternative Names Inositol 1,4,5-trisphosphate receptor type 1 IP3 receptor isoform 1 IP3R 1

InsP3R1 Type 1 inositol 1,4,5-trisphosphate receptor Type 1 InsP3 receptor

Function Intracellular channel that mediates calcium release from the endoplasmic

reticulum following stimulation by inositol 1,4,5-trisphosphate. Involved in the regulation of epithelial secretion of electrolytes and fluid through the interaction with AHCYL1. Plays a role in ER stress-induced apoptosis. Cytoplasmic calcium released from the ER triggers apoptosis by the activation

of CaM kinase II, eventually leading to the activation of downstream

apoptosis pathways.

Sequence and Domain Family The receptor contains a calcium channel in its C-terminal extremity. Its large

N-terminal cytoplasmic region has the ligand-binding site in the N-terminus and modulatory sites in the middle portion immediately upstream of the

channel region.

Cellular Localization Endoplasmic reticulum membrane Cytoplasmic vesicle, secretory vesicle

membrane Cytoplasm, perinuclear region. Endoplasmic reticulum and

secretory granules .

Post-translational Phosphorylated on tyrosine residues. Ubiquitination at multiple lysines targets

ITPR1 for proteasomal degradation. Approximately 40% of the ITPR1-associated ubiquitin is monoubiquitin, and polyubiquitins are both 'Lys-48'-

and 'Lys-63'-linked . Phosphorylated by cAMP kinase (PKA).

Phosphorylation prevents the ligand-induced opening of the calcium channels.

Phosphorylation by PKA increases the interaction with inositol 1,4,5-

trisphosphate and decreases the interaction with AHCYL1.

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Modifications

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