10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

IP3 Receptor Antibody
Rabbit mAb
Catalog # AP91393

Specification

IP3 Receptor Antibody - Product Information

Application	**WB, IHC, IP**
Primary Accession	Q14643
Reactivity	**Rat**
Clonality	**Monoclonal**

Other Names
5-trisphosphate receptor; Inositol 1; InsP3R1; IP3; IP3 receptor; IP3R 1; IP3R; IP3R1; Itpr1; SCA15; SCA16; SCA29;

Isotype	**Rabbit IgG**
Host	**Rabbit**
Calculated MW	**313929 Da**

IP3 Receptor Antibody - Additional Information

Purification	**Affinity-chromatography**
Immunogen	**A synthesized peptide derived from human IP3 Receptor**
Description	**Intracellular channel that mediates calcium release from the endoplasmic reticulum following stimulation by inositol 1,4,5-trisphosphate.**
Storage Condition and Buffer	**Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.**

IP3 Receptor Antibody - Protein Information

Name ITPR1 {ECO:0000303|PubMed:7852357, ECO:0000312|HGNC:HGNC:6180}

Function
Inositol 1,4,5-trisphosphate-gated calcium channel that, upon inositol 1,4,5-trisphosphate binding, mediates calcium release from the endoplasmic reticulum (ER) (PubMed:10620513, PubMed:27108797). Undergoes conformational changes upon ligand binding, suggesting structural flexibility that allows the channel to switch from a closed state, capable of interacting with its ligands such as 1,4,5-trisphosphate and calcium, to an open state, capable of transferring calcium ions across the ER membrane (By similarity). Cytoplasmic calcium released from the ER triggers apoptosis by the activation of CAMK2 complex (By similarity). Involved in the regulation of epithelial secretion of electrolytes and fluid through the interaction with AHCYL1 (By similarity). Part of a complex composed of HSPA9, ITPR1 and VDAC1 that regulates mitochondrial calcium-dependent apoptosis

by facilitating calcium transport from the ER lumen to the mitochondria intermembrane space thus providing calcium for the downstream calcium channel MCU that directly releases it into mitochondria matrix (By similarity). Regulates fertilization and egg activation by tuning the frequency and amplitude of calcium oscillations (By similarity).

Cellular Location
Endoplasmic reticulum membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:P29994, ECO:0000255} Cytoplasmic vesicle, secretory vesicle membrane {ECO:0000250|UniProtKB:Q9TU34}; Multi-pass membrane protein {ECO:0000250|UniProtKB:P29994, ECO:0000255}. Cytoplasm, perinuclear region. Note=Found in a complex with HSPA9 and VDAC1 at the endoplasmic reticulum-mitochondria contact sites. {ECO:0000250|UniProtKB:P29994}

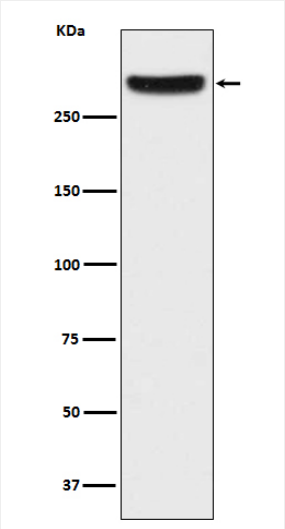
Tissue Location
Widely expressed..

IP3 Receptor Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

IP3 Receptor Antibody - Images



Western blot analysis of IP3 Receptor expression in HeLa cell lysate.