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ITPR3 Antibody (internal region)

Peptide-affinity purified goat antibody
Catalog # AF2484a

Specification

ITPR3 Antibody (internal region) - Product Information

Application	**E**
Primary Accession	Q14573
Other Accession	NP_002215.2, 3710
Predicted	**Human, Mouse, Rat, Dog**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**0.5 mg/ml**
Isotype	**IgG**
Calculated MW	**304106**

ITPR3 Antibody (internal region) - Additional Information

Gene ID 3710

Other Names
Inositol 1, 4, 5-trisphosphate receptor type 3, IP3 receptor isoform 3, IP3R 3, InsP3R3, Type 3 inositol 1, 4, 5-trisphosphate receptor, Type 3 InsP3 receptor, ITPR3

Dilution
E~~N/A

Format
0.5 mg/ml in Tris saline, 0.02% sodium azide, pH7.3 with 0.5% bovine serum albumin

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
ITPR3 Antibody (internal region) is for research use only and not for use in diagnostic or therapeutic procedures.

ITPR3 Antibody (internal region) - Protein Information

Name ITPR3 (HGNC:6182)

Function
Inositol 1,4,5-trisphosphate-gated calcium channel that, upon 1D-myo-inositol 1,4,5-trisphosphate binding, transports calcium from the endoplasmic reticulum lumen to cytoplasm, thus releasing the intracellular calcium and therefore participates in cellular calcium ion homeostasis (PubMed:32949214,

PubMed:37898605, PubMed:8081734, PubMed:8288584). 1D-myo-inositol 1,4,5-trisphosphate binds to the ligand-free channel without altering its global conformation, yielding the low-energy resting state, then progresses through resting-to preactivated transitions to the higher energy preactivated state, which increases affinity for calcium, promoting binding of the low basal cytosolic calcium at the juxtamembrane domain (JD) site, favoring the transition through the ensemble of high-energy intermediate states along the trajectory to the fully-open activated state (PubMed:30013099, PubMed:35301323, PubMed:37898605). Upon opening, releases calcium in the cytosol where it can bind to the low-affinity cytoplasmic domain (CD) site and stabilizes the inhibited state to terminate calcium release (PubMed:30013099, PubMed:35301323, PubMed:37898605).

Cellular Location
Endoplasmic reticulum membrane {ECO:0000250|UniProtKB:Q63269}; Multi-pass membrane protein. Cytoplasmic vesicle, secretory vesicle membrane {ECO:0000250|UniProtKB:Q8WN95}; Multi-pass membrane protein. Note=Also localizes at mitochondria-associated membranes (MAMs). {ECO:0000250|UniProtKB:P70227}

Tissue Location
Expressed in intestinal crypt and villus epithelial cells.

ITPR3 Antibody (internal region) - 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

ITPR3 Antibody (internal region) - Images

ITPR3 Antibody (internal region) - Background

No cross-reactivity expected with other types of ITPR

ITPR3 Antibody (internal region) - References

IP3 receptor types 2 and 3 mediate exocrine secretion underlying energy metabolism. Futatsugi A, Nakamura T, Yamada MK, Ebisui E, Nakamura K, Uchida K, Kitaguchi T, Takahashi-Iwanaga H, Noda T, Aruga J, Mikoshiba K. Science. 2005 Sep 30;309(5744):2232-4. PMID: 16195467