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Product datasheet for TA328768

Itpr2 Rabbit Polyclonal Antibody

Product data:

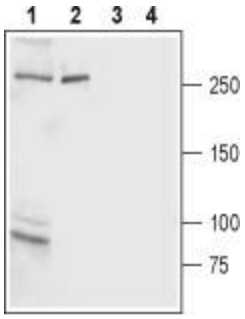
Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)RLGFLGSNTPHENH, corresponding to amino acid residues 2683-2696 of rat IP3R2.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN3.
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	inositol 1,4,5-trisphosphate receptor, type 2
Database Link:	NP_112308 Entrez Gene 81678 Rat P29995

View online »

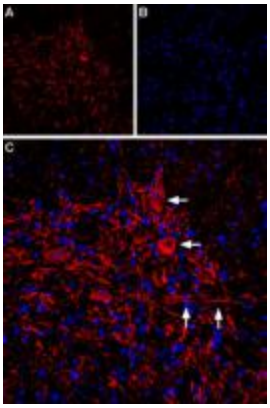
Background: Inositol 1,4,5-trisphosphate receptors (IP3Rs) are intracellular Ca2+ release channels located on the endoplasmic reticulum (ER) and mediate Ca2+ mobilization from the ER to the cytoplasm in response to the binding of the second messenger, inositol 1,4,5-trisphosphate (IP3). IP3-induced Ca2+ release is triggered by various external stimuli, and most non-excitable cells use this mechanism as the primary Ca2+ signaling pathway. IP3Rs are therefore thought to have important physiological roles in various cell types and tissues. Three subtypes of IP3Rs, derived from three distinct genes, have been identified in mammals. All three receptors have six transmembrane domains and a pore domain between TM5 and TM6. The N-terminus as well as the C-terminus are cytoplasmic. Each IP3R consists of an N-terminal ligand binding domain (LBD) and a C-terminal domain which is linked by a long regulatory domain. The C-terminus is constitutively active, suggesting that the regulatory domain is required to maintain the suppression of channel activity. Type 2 IP3R (IP3R2) is expressed in various tissues and cell lines. IP3R2 mRNA is localized in the intralobular duct cells of the submandibular gland, the urinary tubule cells of the kidney, the epithelial cells of epididymal ducts and the follicular granulosa cells of the ovary. IP3R2 is active during osteoclast differentiation, and its absence causes a partial defect in osteoclastic differentiation.

Synonyms: InsP3R2; IP3R2

Product images:



Western blot analysis of rat brain membrane (lanes 1 and 3) and rat basophilic leukemia (RBL) cell line lysate (lanes 2 and 4): 1-2. Anti-IP3 Receptor-2 antibody, (1:200). 3-4. Anti-IP3 Receptor-2 antibody, preincubated with the control peptide antigen.



Expression of IP3 Receptor-2 in rat spinal cord. Immunohistochemical staining of IP3 Receptor-2 in rat spinal cord using Anti-IP3 Receptor-2 antibody. A. IP3 Receptor-2 immunoreactivity (red) appears in neuronal soma (horizontal arrows) and processes (vertical arrows). B. Nuclear staining using DAPI as the counterstain (blue). C. Merged image of A and B.