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Product datasheet for AP08902PU-N

IP3 receptor (ITPR1) (C-term) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ELISA, IHC, WB
Recommended Dilution:	**ELISA**. **Immunohistochemistry on Paraffin Sections:** 10 µg/ml. **Western Blot:** 1 µg/ml.
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Synthetic peptide corresponding to C-terminal residues of human ITPR1 (Inositol 1,4,5-triphosphate receptor type 1)
Specificity:	This antibody detects ITPR1 at C-term.
Formulation:	PBS State: Aff - Purified State: Liquid purified Ig fraction Stabilizer: 50% Glycerol Preservative: 0.01% Sodium Azide
Concentration:	lot specific
Purification:	Immunoaffinity Chromatography
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	inositol 1,4,5-trisphosphate receptor type 1
Database Link:	Entrez Gene 3708 Human Q14643

View online »

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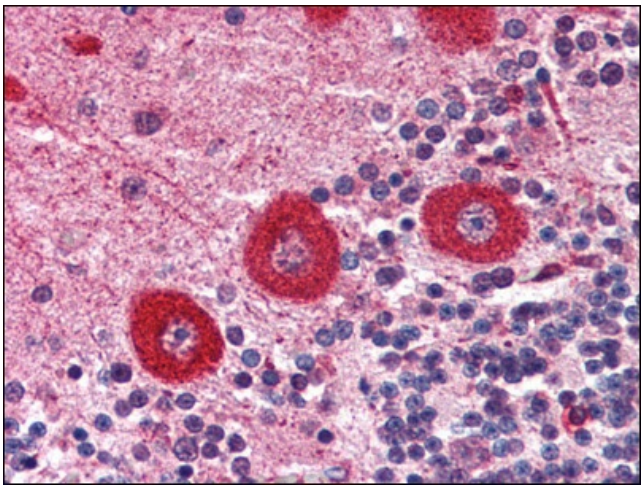
Background: Inositol 1,4,5-trisphosphate (IP3) is a second messenger for many growth factors, hormones, and neurotransmitters. Upon binding to the IP3 receptor (IP3R), IP3 triggers the release of intracellular, luminal calcium to the cytosol. Functional IP3R is a homo- or heterotetramer of ~240 kDa glycoprotein subunits, that is structurally reminiscent of members of the voltage-gated ion channel superfamily. IP3R protein is structurally and functionally related to one other important intracellular calcium-release channel, the ryanodine receptor. The similarity between the two receptors continues at the physiological level owing to a physical association each receptor can have with the immunophilin protein, FKBP12. Cytosolic calcium levels appear to be regulated by a feedback loop that starts with calcium activation of protein kinase C (PKC) and calcineurin, a protein phosphatase. Phosphorylation of the IP3R by PKC causes an increase in IP3-mediated calcium release. Concomitantly, the phosphatase activity of calcineurin is stimulated upon its association with the FKBP12-IP3R complex. Calcium release is reduced when the PKC target site on the IP3R is dephosphorylated by calcineurin resulting in calcium oscillations. Mammalian IP3R subunits are the product of three distinct genes that are widely expressed and differentially regulated. IP3R type I (IP3R-I) has been detected in heart, liver, kidney, ovary, and Purkinje neurons of the cerebellum. IP3R-II is found predominantly in the brain. IP3R-III is known to be expressed in pancreatic islets, kidney, and the gastrointestinal tract.

Synonyms: Type 1 InsP3 receptor, InsP3R1, INSP3R1, IP3R1

Product images:



Formalin-Fixed, Paraffin-Embedded Human brain, cerebellum tissue stained with ITPR1 Antibody at 10 ug/m.after heat-induced antigen retrieval.

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