Product name:	IP3R-I Rabbit Polyclonal Antibody
Cat number:	ABN12700
Conjugate:	Unconjugated
Size:	100µL
Clone:	Polyclonal
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	The antiserum was produced against synthesized peptide derived from human InsP3R1. AA range:1566-1615
Reactivity:	Human,Mouse,Rat
Applications:	IHC 1:100-1:300,ICC/IF 1:200-1:1000,ELISA 1:10000-1:20000
Purification:	Affinity purification
Form:	Liquid
Buffer:	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% New type preservative N.
Storage:	Store at 4°C short term. Aliquot and store at -20°C for 12 months. Avoid freeze/thaw cycles.

Background:

This gene encodes an intracellular receptor for inositol 1,4,5-trisphosphate. Upon stimulation by inositol 1,4,5-trisphosphate, this receptor mediates calcium release from the endoplasmic reticulum. Mutations in this gene cause spinocerebellar ataxia type 15, a disease associated with an heterogeneous group of cerebellar disorders. Multiple transcript variants have been identified for this gene. [provided by RefSeq, Nov 2009],alternative products:There is a combination of three alternatively spliced domains at site SI, SIII and site SII (A and C). Experimental confirmation may be lacking for some isoforms,disease:Defects in ITPR1 are the cause of spinocerebellar ataxia type 15 (SCA15) (SCA15) [MIM:606658]. Spinocerebellar ataxia is a clinically and genetically heterogeneous group of cerebellar disorders. Patients show progressive incoordination of gait and often poor coordination of hands, speech and eye movements, due to degeneration of the cerebellum with variable involvement of the brainstem and spinal cord. SCA15 is an autosomal dominant cerebellar ataxia (ADCA). It is very slow progressing form with a wide range of onset, ranging from childhood to adult. Most patients remain ambulatory.,domain: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.,function:Intracellular channel that mediates calcium release from the endoplasmic reticulum following stimulation by inositol 1,4,5-trisphosphate.,miscellaneous:Calcium appears to inhibit ligand binding to the receptor, most probably by interacting with a distinct calcium-binding protein which then inhibits the receptor.,PTM:Phosphorylated by cAMP kinase. Phosphorylation prevents the ligand-induced opening of the calcium channels.,PTM:Phosphorylated on tyrosine residues.,similarity:Belongs to the InsP3 receptor family.,similarity:Contains 5 MIR domains.,subunit:Homotetramer. Interacts with TRPC4. The PPXXF motif binds HOM1, HOM2 and HOM3. Interacts with RYR1, RYR2, ITPR1, SHANK1 and SHANK3. Interacts with ERP44 in a pH-, redox state- and calcium-dependent manner which results in the inhibition the calcium channel activity. The strength of this interaction inversely correlates with calcium concentration. Part of cGMP kinase signaling complex at least composed of ACTA2/alpha-actin, CNN1/calponin H1, PLN/phospholamban, PRKG1 and ITPR1. Interacts with AHCYL1 (By similarity). Interacts with MRVI1.,tissue specificity:Widely expressed.,