IP3R-I (Phospho Ser1764) Rabbit pAb

CatalogNo: YP1098

Key Features

Host Species	Reactivity	Applications
• Rabbit	• Human,Mouse,Rat	• WB,IHC,IF,ELISA

MW	Isotype
• 314kD (Calculated)	• IgG

Storage

Storage*	-15°C to -25°C/1 year (Do not lower than -25°C)
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Recommended Dilution Ratios

WB 1:500-2000
IHC 1:100-1:300
ELISA 1:5000
IF 1:50-200

Basic Information

Clonality	Polyclonal

Immunogen Information

Immunogen	The antiserum was produced against synthesized peptide derived from human IP3R1 around the phosphorylation site of Ser1764. AA range:1730-1779
Specificity	Phospho-IP3R-I (S1764) Polyclonal Antibody detects endogenous levels of IP3R-I protein only when phosphorylated at S1764.The name of modified sites may be influenced by many factors, such as species (the modified site was not originally found in human samples) and the change of protein sequence (the previous protein sequence is incomplete, and the protein sequence may be prolonged with the development of protein sequencing technology). When naming, we will use the "numbers" in historical reference to keep the sites consistent with the reports. The antibody binds to the following modification sequence (lowercase letters are modification sites):REsLT

Target Information

Gene name ITPR1 INSP3R1

Protein Name Inositol 1,4,5-trisphosphate receptor type 1

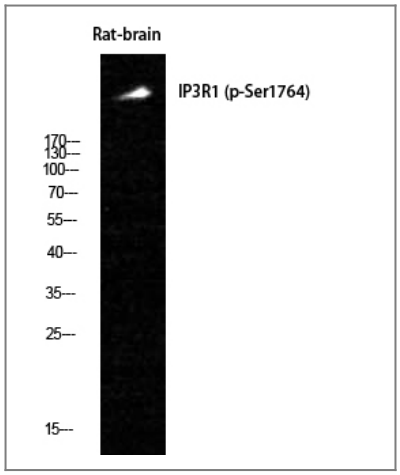
Organism	Gene ID	UniProt ID
Human	3708;	Q14643;
Mouse	16438;	P11881;
Rat	25262;	P29994;

Cellular Localization Endoplasmic reticulum membrane ; Multi-pass membrane protein . Cytoplasmic vesicle , secretory vesicle membrane ; Multi-pass membrane protein . Cytoplasm , perinuclear region . Endoplasmic reticulum and secretory granules (By similarity) . .

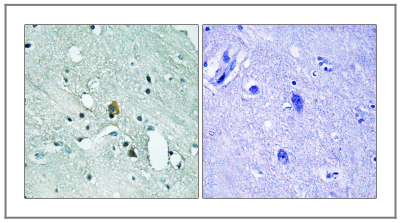
Tissue specificity Widely expressed.

Function 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. ,

Validation Data



Western Blot analysis of Rat-brain cells using Phospho-IP3R-I (S1764) Polyclonal Antibody



Immunohistochemistry analysis of paraffin-embedded human brain, using IP3R1 (Phospho-Ser1764) Antibody. The picture on the right is blocked with the phospho peptide.

Contact information

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Please scan the QR code to access additional product information: **IP3R-I (Phospho Ser1764) Rabbit pAb**

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