



Rabbit Anti-IP3 receptor antibody

SL4242R

Product Name:	IP3 receptor
Chinese Name:	5-三磷酸肌醇受体1抗体
Alias:	Type 1 inositol 1 4 5 trisphosphate receptor; Type 1 inositol 1; Type 1 InsP3 receptor.; 5-trisphosphate receptor; 5-trisphosphate receptor type 1; DKFZp313E1334; DKFZp313N1434; inositol 1 4 5 triphosphate receptor type 1; Inositol 1 4 5 trisphosphate Receptor Type 1; Inositol 1; Inositol 145-trisphosphate Receptor Type 1; InsP3R1; IP3; IP3 receptor; IP3 receptor isoform 1; IP3R 1; IP3R; IP3R1; ITPR 1; Itpr1; ITPR1 HUMAN; SCA15; SCA16; SCA29; ACV; CLA4; INSP3R1.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Cow,Horse,Rabbit,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	303kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human ITPR1:2601-2700/2758
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	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].

Function:

Intracellular channel that mediates calcium release from the endoplasmic reticulum following stimulation by inositol 1,4,5-trisphosphate.

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 MRV11 and CABP1 (via N-terminus).

Subcellular Location:

Endoplasmic reticulum membrane.

Tissue Specificity:

Widely expressed.

Post-translational modifications:

Phosphorylated by cAMP kinase.

Phosphorylation prevents the ligand-induced opening of the calcium channels.

Phosphorylated on tyrosine residues.

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.

Similarity:

Belongs to the InsP3 receptor family.

Contains 5 MIR domains.

SWISS:

Q14643

Gene ID:

3708

Database links:

[Entrez Gene: 476548](#) Dog

[Entrez Gene: 3708](#) Human

[Entrez Gene: 16438](#) Mouse

[Entrez Gene: 25262](#) Rat

[Omim: 147265](#) Human

[SwissProt: Q14643](#) Human

[SwissProt: P11881](#) Mouse

[SwissProt: P29994](#) Rat

[Unigene: 567295](#) Human

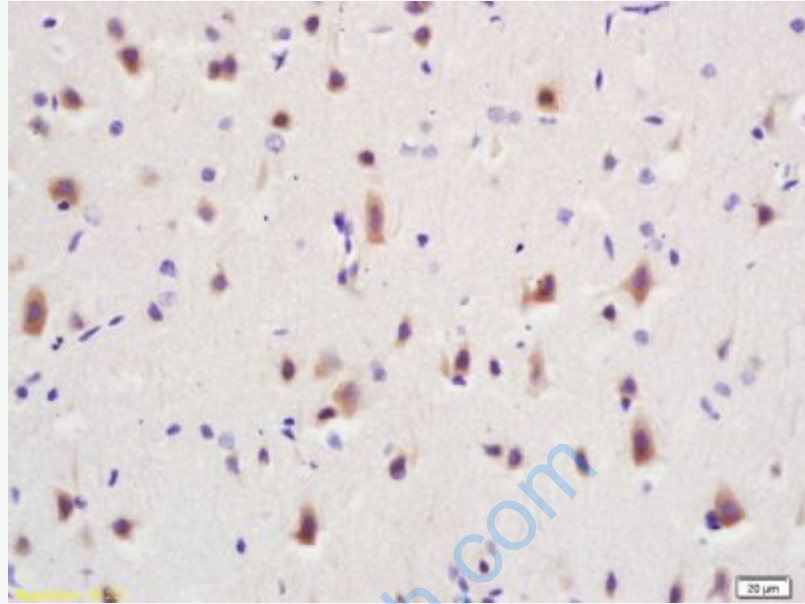
[Unigene: 715765](#) Human

[Unigene: 227912](#) Mouse

[Unigene: 2135](#) Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.



Picture:

Tissue/cell: Rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;
Incubation: Anti-ITPR1 Polyclonal Antibody, Unconjugated(SL4242R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining