

Anti-IP3 Receptor Picoband Antibody

Catalog # ABO11916

Product Information

Application	WB, IHC-P
Primary Accession	Q14643
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for Inositol 1,4,5-trisphosphate receptor type 1 (ITPR1) detection. Tested with WB, IHC-P in Human;Mouse;Rat.
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	3708
Other Names	Inositol 1, 4, 5-trisphosphate receptor type 1, IP3 receptor isoform 1, IP3R 1, InsP3R1, Type 1 inositol 1, 4, 5-trisphosphate receptor, Type 1 InsP3 receptor, ITPR1, INSP3R1
Calculated MW	313929
Application Details	Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat Western blot, 0.1-0.5 µg/ml, Human, Rat
Subcellular Localization	Endoplasmic reticulum membrane; Multi-pass membrane protein.
Tissue Specificity	Widely expressed.
Source	Eukaryota
Protein Name	Inositol 1,4,5-trisphosphate receptor type 1
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E.coli-derived human IP3 receptor recombinant protein (Position: A2411-A2758). Human IP3 receptor shares 98% and 97% amino acid (aa) sequences identity with mouse and rat IP3 receptor, respectively.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins

Storage	At -20° C for one year. After r° Constitution, at 4° C for one month. It° Can also be aliquotted and stored frozen at -20° C for a longer time.Avoid repeated freezing and thawing.
Sequence Similarities	Belongs to the InsP3 receptor family.

Protein Information

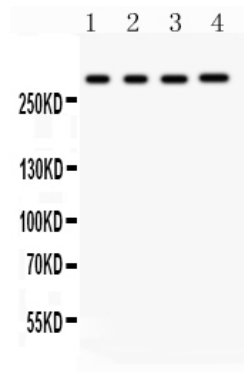
Name	ITPR1 {ECO:0000303 PubMed:7852357, ECO:0000312 HGNC:HGNC:6180}
Function	Inositol 1,4,5-trisphosphate-gated calcium channel that, upon inositol 1,4,5-trisphosphate binding, mediates calcium release from the endoplasmic reticulum (ER) (PubMed: 10620513 , PubMed: 27108797). Undergoes conformational changes upon ligand binding, suggesting structural flexibility that allows the channel to switch from a closed state, capable of interacting with its ligands such as 1,4,5- trisphosphate and calcium, to an open state, capable of transferring calcium ions across the ER membrane (By similarity). Cytoplasmic calcium released from the ER triggers apoptosis by the activation of CAMK2 complex (By similarity). Involved in the regulation of epithelial secretion of electrolytes and fluid through the interaction with AHCYL1 (By similarity). Part of a complex composed of HSPA9, ITPR1 and VDAC1 that regulates mitochondrial calcium-dependent apoptosis by facilitating calcium transport from the ER lumen to the mitochondria intermembrane space thus providing calcium for the downstream calcium channel MCU that directly releases it into mitochondria matrix (By similarity). Regulates fertilization and egg activation by tuning the frequency and amplitude of calcium oscillations (By similarity).
Cellular Location	Endoplasmic reticulum membrane; Multi-pass membrane protein {ECO:0000250 UniProtKB:P29994, ECO:0000255} Cytoplasmic vesicle, secretory vesicle membrane {ECO:0000250 UniProtKB:Q9TU34}; Multi-pass membrane protein {ECO:0000250 UniProtKB:P29994, ECO:0000255}. Cytoplasm, perinuclear region. Note=Found in a complex with HSPA9 and VDAC1 at the endoplasmic reticulum-mitochondria contact sites. {ECO:0000250 UniProtKB:P29994}
Tissue Location	Widely expressed..

Background

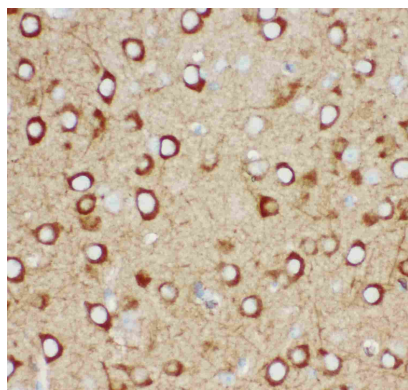
Inositol 1,4,5-trisphosphate receptor type 1, also known as IP3R or IP3R1, is a protein that in humans is encoded by the ITPR1 gene. It is mapped to 3p26.1. The product of the ITPR1 gene is predominantly enriched in cerebellar Purkinje cells but is also concentrated in neurons in the hippocampal CA1 region, caudate-putamen, and cerebral cortex. The ITPR1 gene encodes the inositol 1,4,5-trisphosphate(IP3) receptor, an intracellular IP3-gated calcium channel that modulates intracellular calcium signaling. Upon stimulation by inositol 1,4,5-trisphosphate, this receptor mediates calcium release from the endoplasmic reticulum. Mutations in ITPR1 cause spinocerebellar ataxia type 15, a disease associated with an heterogeneous group of cerebellar disorders.

Images

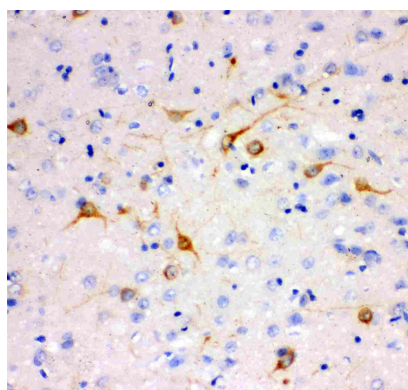
Anti- IP3 receptor antibody, ABO11916, Western blottingAll lanes: Anti IP3 receptor (ABO11916) at 0.5ug/mlWB: Recombinant Human IP3 receptor Protein 0.5ngPredicted bind size: 45KDObserved bind size: 45KD



Anti- IP3 receptor antibody, ABO11916, Western blotting
All lanes: Anti IP3 receptor (ABO11916) at 0.5ug/ml
Lane 1: Rat Brain Tissue Lysate at 50ug
Lane 2: Rat Liver Tissue Lysate at 50ug
Lane 3: HELA Whole Cell Lysate at 40ug
Lane 4: HEPG2 Whole Cell Lysate at 40ug
Predicted bind size: 314KD
Observed bind size: 314KD

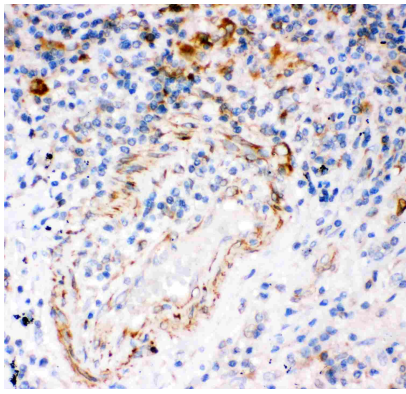


Anti- IP3 receptor antibody, ABO11916,IHC(P)
IHC(P): Mouse Brain Tissue



Anti- IP3 receptor antibody, ABO11916,IHC(P)
IHC(P): Rat Brain Tissue

Anti- IP3 receptor antibody, ABO11916,IHC(P)
IHC(P): Human Lung Cancer Tissue



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.