

**Anti-IP3 Receptor Picoband Antibody**  
**Catalog # ABO11916****Specification****Anti-IP3 Receptor Picoband Antibody - Product Information**

|                   |                        |
|-------------------|------------------------|
| Application       | WB, IHC-P              |
| Primary Accession | <a href="#">Q14643</a> |
| 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.

**Anti-IP3 Receptor Picoband Antibody - 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 MW KDa

**Application Details**

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Human, Mouse, Rat, By Heat<br>Western blot, 0.1-0.5 µg/ml, Human, Rat<br>

**Subcellular Localization**

Endoplasmic reticulum membrane; Multi-pass membrane protein.

**Tissue Specificity**

Widely expressed.

**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.

**Anti-IP3 Receptor Picoband Antibody - 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:<a href="http://www.uniprot.org/citations/10620513" target="\_blank">10620513</a>, PubMed:<a href="http://www.uniprot.org/citations/27108797" target="\_blank">27108797</a>). 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..

**Anti-IP3 Receptor Picoband Antibody - Protocols**

Provided below are standard protocols that you may find useful for product applications.

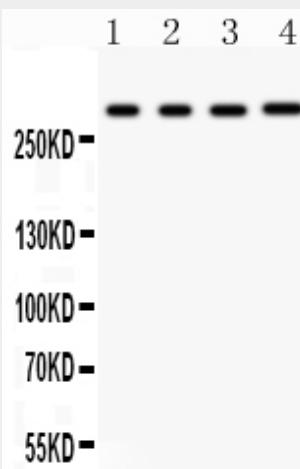
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)

- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

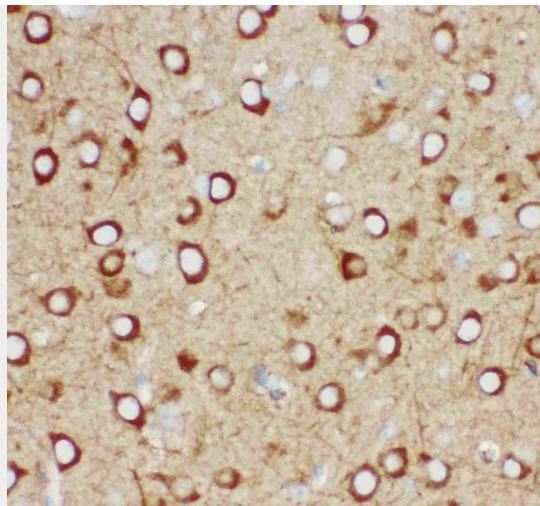
**Anti-IP3 Receptor Picoband Antibody - Images**

100KD-  
70KD-  
55KD-  
35KD-  
25KD-  
15KD-

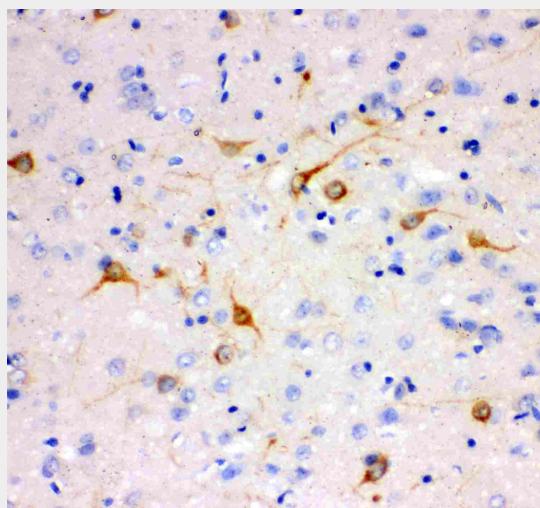
Anti- IP3 receptor antibody, ABO11916, Western blottingAll lanes: Anti IP3 receptor (ABO11916) at 0.5ug/mlWB: Recombinant Human IP3 receptor Protein 0.5ngPredicted bind size: 45KDObserved bind size: 45KD



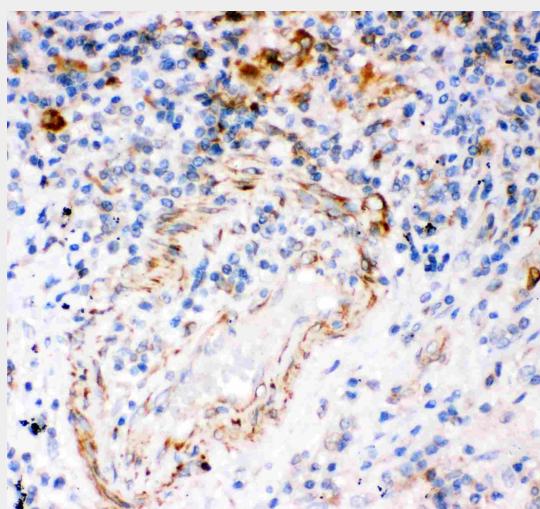
Anti- IP3 receptor antibody, ABO11916, Western blottingAll lanes: Anti IP3 receptor (ABO11916) at 0.5ug/mlLane 1: Rat Brain Tissue Lysate at 50ugLane 2: Rat Liver Tissue Lysate at 50ugLane 3: HELO Whole Cell Lysate at 40ugLane 4: HEPG2 Whole Cell Lysate at 40ugPredicted bind size: 314KDObserved bind 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

#### **Anti-IP3 Receptor Picoband Antibody - 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-triphosphate(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.