

Polyclonal Anti-ITPR1 Antibody

Catalog Number: PA2270

Description

Gene Name	inositol 1,4,5-trisphosphate receptor, type 1
Recommended Protein Name	Inositol 1,4,5-trisphosphate receptor type 1
Lot No.	0221412c017026
Size	100µg/vial
Form	lyophilized
Ig type	Rabbit IgG
Specificity	No cross reactivity with other proteins.
Purification	Immunogen affinity purified.
Species	Reacts with: human, mouse, rat
Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human ITPR1(1913-1927aa TTQITEEVRDQLLEA), identical to the related rat and mouse sequences.
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg Thimerosal, 0.05mg NaN ₃ .

Application

	Concentration	Tested Species	Predicted Species	Antigen Retrieval
Western blot	0.1-0.5µg/ml	Hu, Ms, Rat	-	-
Immunohistochemistry (Paraffin-embedded Section)	0.5-1µg/ml	Hu, Rat	Ms	By Heat

Tested Species: In-house tested species with positive results.

Predicted Species: Species predicted to be fit for the product based on sequence similarities.

By Heat: Boiling the paraffin sections in 10mM citrate buffer, pH6.0, for 20mins is required for the staining of formalin/paraffin sections.

Other applications have not been tested.

Optimal dilutions should be determined by end users.

Preparation and storage

Reconstitution: 0.2ml of distilled water will yield a concentration of 500µg/ml.

Storage: At -20°C for one year. After reconstitution, 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.

Relevant detection systems

Boster provides a series of assays reacted with primary antibodies. Antibody can be supported by chemiluminescence kit EK1002 in WB, supported by SA1022 in IHC(P).

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. This gene has been shown to interact with CA8, PRKG1, FKBP1A and so on.

Reference

1. "Entrez Gene: ITPR1 inositol 1,4,5-triphosphate receptor, type 1"
2. Matsumoto, M., Nakagawa, T., Inoue, T., Nagata, E., Tanaka, K., Takano, H., Minowa, O., Kuno, J., Sakakibara, S., Yamada, M., Yoneshima, H., Miyawaki, A, Fukuichi, T., Furuichi, T., Okano, H., Mikoshiba, K., Noda, T. Ataxia and epileptic seizures in mice lacking type 1 inositol 1,4,5-triphosphate receptor. Nature 379: 168-171, 1996.