

Anti-P2RX4 Picoband Antibody

Catalog # ABO11995

Product Information

Application	WB
Primary Accession	Q99571
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
Description	Rabbit IgG polyclonal antibody for P2X purinoceptor 4(P2RX4) detection. Tested with WB in Human.

Reconstitution Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Additional Information

Gene ID	5025
Other Names	P2X purinoceptor 4, P2X4, ATP receptor, Purinergic receptor, P2RX4
Calculated MW	43369
Application Details	Western blot, 0.1-0.5 µg/ml, Human
Subcellular Localization	Membrane ; Multi-pass membrane protein .
Source	Eukaryota
Protein Name	P2X purinoceptor 4
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Immunogen	E.coli-derived human P2RX4 recombinant protein (Position: N262-Q388). Human P2RX4 shares 91% and 90% amino acid (aa) sequence identity with mouse and rat P2RX4, respectively.
Purification	Immunogen affinity purified.
Cross Reactivity	No cross reactivity with other proteins
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.
Sequence Similarities	Belongs to the P2X receptor family.

Protein Information

Name	P2RX4
Function	ATP-gated nonselective transmembrane cation channel permeable to potassium, sodium and calcium (PubMed: 9016352). CTP, but not GTP or UTP, functions as a weak affinity agonist for P2RX4 (By similarity). Activated by extracellularly released ATP, it plays multiple role in immunity and central nervous system physiology (PubMed: 35165166). Plays a key role in initial steps of T-cell activation and Ca(2+) microdomain formation (By similarity). Also participates in basal T-cell activity without TCR/CD3 stimulation (By similarity). Promotes the differentiation and activation of Th17 cells via expression of retinoic acid-related orphan receptor C/RORC (PubMed: 35165166). Upon activation, drives microglia motility via the PI3K/Akt pathway (By similarity). Could also function as an ATP-gated cation channel of lysosomal membranes (By similarity).
Cellular Location	Cell membrane; Multi-pass membrane protein {ECO:0000250 UniProtKB:F8W463}. Lysosome membrane; Multi-pass membrane protein

Background

Purinoceptor P2X4, also called P2X4R is a protein that in humans is encoded by the P2RX4 gene. This gene belongs to the family of purinoceptors for ATP. P2RX4 was mapped to 12q24.32 by fluorescence in situ hybridization. P2RX4 is a receptor for ATP that acts as a ligand-gated ion channel. This receptor is insensitive to the antagonists PPADS and suramin. P2X4 receptor in hyperactive microglia is necessary for tactile allodynia after nerve injury and is sufficient to produce tactile allodynia in normal animals. P2X4 receptors have been implicated in the regulation of cardiac function, ATP-mediated cell death, synaptic strengthening, and activating of the inflammasome in response to injury.

Images



Anti- P2RX4 Picoband antibody, ABO11995, Western blotting
All lanes: Anti P2RX4 (ABO11995) at 0.5ug/ml
WB: Recombinant Human P2RX4 Protein 0.5ng
Predicted bind size: 39KD
Observed bind size: 39KD

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