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Anti-P2RX4 Picoband Antibody

Catalog # ABO11995

Specification

Anti-P2RX4 Picoband Antibody - 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.

Anti-P2RX4 Picoband Antibody - Additional Information

Gene ID 5025

Other Names
P2X purinoceptor 4, P2X4, ATP receptor, Purinergic receptor, P2RX4

Calculated MW
43369 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization
Membrane ; Multi-pass membrane protein .

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 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 P2X receptor family.

Anti-P2RX4 Picoband Antibody - 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). Participates also 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

Anti-P2RX4 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 Cytomety
- Cell Culture

Anti-P2RX4 Picoband Antibody - Images

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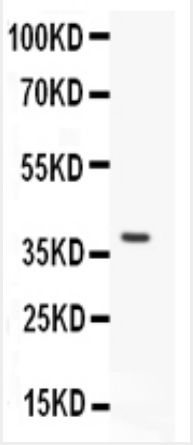

Anti- P2RX4 Picoband antibody, ABO11995, Western blottingAll lanes: Anti P2RX4 (ABO11995) at 0.5ug/mlWB: Recombinant Human P2RX4 Protein 0.5ngPredicted bind size: 39KDObserved bind size: 39KD

Anti-P2RX4 Picoband Antibody - 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 recetors have beeb implicated in the regulation of cardiac function, ATP-mediated cell death, synaptic strengthening, and activating of the inflammasome in response to injury.