

P2RX4 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP58716

Product Information

Application WB, IHC-P, IHC-F, IF, E

Primary Accession <u>Q99571</u>

Reactivity Rat, Dog, Bovine

Host Rabbit
Clonality Polyclonal
Calculated MW 43369
Physical State Liquid

Immunogen KLH conjugated synthetic peptide derived from human P2RX4

Epitope Specificity 238-338/388

Isotype IgG

Purity affinity purified by Protein A

Buffer 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.

SUBCELLULAR LOCATION Membrane; Multi-pass membrane protein.

SIMILARITY Belongs to the P2X receptor family.

SUBUNIT Functional P2XRs are organized as homomeric and heteromeric trimers. **Important Note** This product as supplied is intended for research use only, not for use in

human therapoutic or diagnostic applications

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Background Descriptions The P2X receptor family is comprised of ligand-gated ion channels that allow

for the increased permeability of calcium into the cell in response to extracellular ATP. The seven P2X receptors, P2X1-P2X7, form either homomeric or heteromeric channels or both. They are characterized by intracellular amino- and carboxy-termini. P2X receptors are expressed in a wide variety of tissues, including neurons, prostate, bladder, pancreas, colon, testis and ovary. The major function of the P2X receptors is to mediate synaptic transmissions between neurons and to other tissues via the binding of extracellular ATP, which acts as a neurotransmitter. The P2X receptors may be involved in the onset of necrosis or apoptosis after prolonged exposure to

high concentrations of extracellular ATP.

Additional Information

Gene ID 5025

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

Dilution WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,ELISA=1:5000

-10000

Format 0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce

Storage Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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:<u>35165166</u>). Upon activation, drives microglia motility via the PI3K/Akt pathway (By similarity). Could also function as an ATP-gated cation

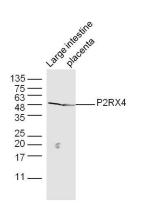
channel of lysosomal membranes (By similarity).

Cellular Location Cell membrane; Multi-pass membrane protein

{ECO:0000250|UniProtKB:F8W463}. Lysosome membrane; Multi-pass

membrane protein

Images



Sample:

Large intestine (Mouse) Lysate at 40 ug Placenta (Mouse) Lysate at 40 ug Primary: Anti-P2RX4 (AP58716) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at

1/20000 dilution

Predicted band size: 43 kD Observed band size: 48 kD

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