

Goat Anti-P2X4 / P2X4R Antibody
Peptide-affinity purified goat antibody
Catalog # AF1771a**Specification**

Goat Anti-P2X4 / P2X4R Antibody - Product Information

Application	WB, FC
Primary Accession	Q99571
Other Accession	NP_002551 , 5025 , 18438 (mouse) , 29659 (rat)
Reactivity	Human, Mouse
Predicted	Rat, Dog
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	43369

Goat Anti-P2X4 / P2X4R Antibody - Additional Information**Gene ID** 5025**Other Names**

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

Format

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Goat Anti-P2X4 / P2X4R Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-P2X4 / P2X4R 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

Goat Anti-P2X4 / P2X4R 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](#)

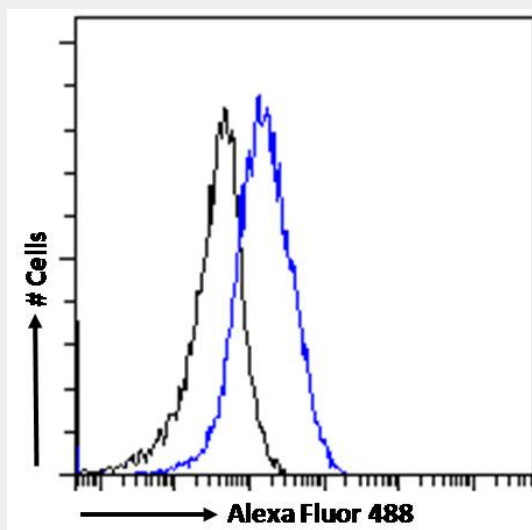
Goat Anti-P2X4 / P2X4R Antibody - Images



AF1771a (0.3 µg/ml) staining of Human Kidney lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.



EB08830 (1µg/ml) staining of Human Kidney lysate (35µg protein in RIPA buffer). Detected by chemiluminescence.



EB08830 Flow cytometric analysis of paraformaldehyde fixed A431 cells (blue line), permeabilized with 0.5% Triton. Primary incubation 1hr (10ug/ml) followed by Alexa Fluor 488 secondary antibody (1ug/ml). IgG control: Unimmunized goat IgG (black line) for

Goat Anti-P2X4 / P2X4R Antibody - Background

The product of this gene belongs to the family of purinoceptors for ATP. This receptor functions as a ligand-gated ion channel with high calcium permeability. The main pharmacological distinction between the members of the purinoceptor family is the relative sensitivity to the antagonists suramin and PPADS. The product of this gene has the lowest sensitivity for these antagonists. Multiple alternatively spliced transcript variants have been identified for this gene although their full-length natures have not been determined.

Goat Anti-P2X4 / P2X4R Antibody - References

Variation at the NFATC2 Locus Increases the Risk of Thiazolinedinedione-Induced Edema in the Diabetes REduction Assessment with ramipril and rosiglitazone Medication (DREAM) Study. Bailey SD, et al. Diabetes Care, 2010 Jul 13. PMID 20628086.
Gene-centric association signals for lipids and apolipoproteins identified via the HumanCVD BeadChip. Talmud PJ, et al. Am J Hum Genet, 2009 Nov. PMID 19913121.

Amyloid-beta induces a caspase-mediated cleavage of P2X4 to promote purinotoxicity. Varma R, et al. Neuromolecular Med, 2009. PMID 19562525.

Functional evidence for the expression of P2X1, P2X4 and P2X7 receptors in human lung mast cells. Wareham K, et al. Br J Pharmacol, 2009 Aug. PMID 19552691.

Dynamic regulation of the P2X4 receptor in alveolar macrophages by phagocytosis and classical activation. Stokes L, et al. Eur J Immunol, 2009 Apr. PMID 19283779.