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Product datasheet for TA329003

P2X1 (P2RX1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	FC, IF, IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3,000; FC: 1:50-1:600
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide CRPIYEFHGLYEEK, corresponding to amino acid residues 270-283 of human P2X1 receptor . Extracellular loop.
Formulation:	Lyophilized. Concentration before lyophilization ~0.8mg/ml (lot dependent, please refer to CoA along with shipment for actual concentration). Buffer before lyophilization: Phosphate buffered saline (PBS), pH 7.4, 1% BSA, 0.05% NaN3.
Reconstitution Method:	Add 50 ul double distilled water (DDW) to the lyophilized powder.
Purification:	Affinity purified on immobilized antigen.
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	purinergic receptor P2X 1
Database Link:	NP_002549 Entrez Gene 18436 MouseEntrez Gene 25505 RatEntrez Gene 5023 Human P51575

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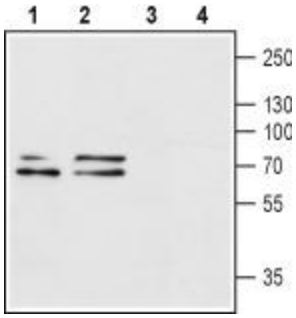
Background: The P2X receptors belong to the ligand-gated ion channel family and are activated by extracellular ATP.The structure and function of the P2X receptors, investigated mainly using in vitro models, indicate their involvement in synaptic communication, cell death, and differentiation.Seven mammalian P2X receptor subtypes (P2X1â??P2X7) have been identified and cloned. All P2X receptor subtypes share the same structure of intracellular N- and C-termini two membrane-spanning domains and a large extracellular loop.All P2X receptor subtypes can assemble to form homomeric or heteromeric functional channels with the exception of P2X6, which only seems to function as part of a heteromeric complex.The various P2X receptor subtypes show distinct expression patterns. P2X1-6 have been found in the central and peripheral nervous systems, while the P2X7 receptor is predominantly found in cells of the immune system4. The P2X1 receptor is present in smooth muscle, cerebellum, dorsal horn spinal neurons, and platelets where it is suggested to play a regulatory role during in vivo homeostasis and thrombosis.

Synonyms: P2X1

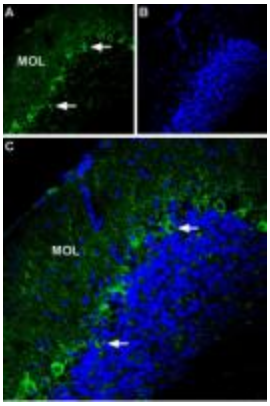
Protein Families: Druggable Genome, Ion Channels: ATP Receptors, Transmembrane

Protein Pathways: Calcium signaling pathway, Neuroactive ligand-receptor interaction

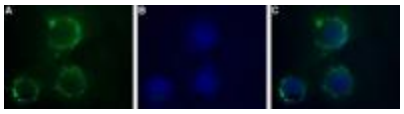
Product images:



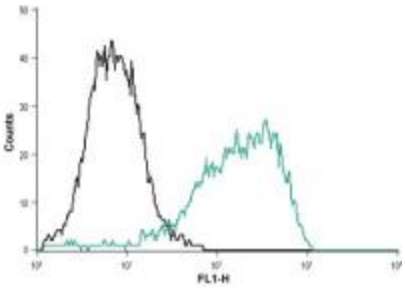
Western blot analysis of rat brain (lanes 1 and 3) and mouse brain (lanes 2 and 4) lysates: 1, 2. Anti-P2X1 Receptor (extracellular) antibody, (1:200). 3, 4. Anti-P2X1 Receptor (extracellular) antibody, preincubated with the control peptide antigen.



Expression of P2X1 in mouse cerebellum. Immunohistochemical staining of mouse cerebellum using Anti-P2X1 Receptor (extracellular) antibody. A. Most of P2X1 labeling (green) appears in fine processes in the molecular layer (MOL) and in Purkinje cells (arrows show examples). B. DAPI is used as the counterstain (blue). C. Merge of A and B.



Expression of P2X1 in human SH-SYS5 cells. Immunocytochemical staining of human intact living SH-SYS5 cells A. Extracellular staining of cells with Anti-P2X1 (extracellular) antibody, (1:50) followed by goat anti-rabbit-AlexaFluor-488 secondary antibody. B. Nuclear staining DAPI as the counterstain. C. Merged images of A and B.



Indirect flow cytometry analysis of MEG-O1 cells: black line: Unstained cells. Green line: Cells + Anti-P2X1 Receptor (extracellular) antibody, (10 µg antibody/1x106 cells).