

Product datasheet for **TA328993**

P2rx2 Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IHC, WB
Recommended Dilution:	WB: 1:200-1:2000; IHC: 1:100-1:3000
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Peptide (C)SQQDSTSTDPKGLAQL, corresponding to amino acid residues 457-472 of rat P2X2 Receptor . Intracellular, C-terminus.
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% NaN ₃ .
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 2
Database Link:	NP_446108 Entrez Gene 22953 Human Entrez Gene 231602 Mouse Entrez Gene 114115 Rat P49653



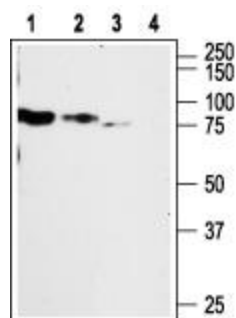
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Background:

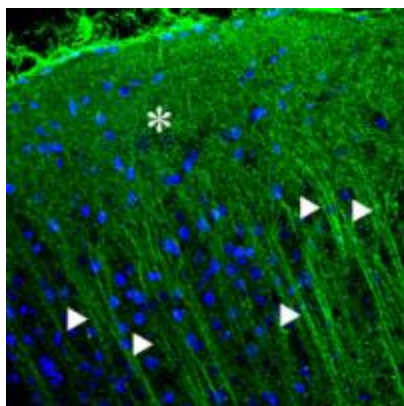
The P2X receptors belong to the ligand-gated ion channel family and are activated by extracellular ATP. The structure and function of the P2X receptors, which were mainly investigated using in vitro models, indicate of their involvement in synaptic communication, cell death, and differentiation. Seven mammalian P2X receptor subtypes (P2X1–P2X7) have been identified and cloned.^{1,2,3} 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 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.^{4–9} The various mammalian P2X receptors show distinct expression patterns. P2X1–6 have been found in the central and peripheral nervous system, while the P2X7 receptor is predominantly found in cells of the immune system.⁴ The P2X2 receptor subtypes has a widespread tissue distribution in autonomic neurons, but it is generally found to be co-expressed with one or more subtypes. mRNA of the P2X1, P2X2, P2X3, and P2X6 receptors is found in neurons of dorsal root ganglia (DRG), trigeminal, and nodose ganglia where heteromeric P2X2/P2X3 receptors are found.¹⁰ share the same structure of intracellular N and C-termini, two membrane-spanning domains and a large extracellular loop. All P2X 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 mammalian P2X receptors show distinct expression patterns. P2X1–6 have been found in the central and peripheral nervous system, while the P2X7 receptor is predominantly found in cells of the immune system. The P2X2 receptor subtypes has a widespread tissue distribution in autonomic neurons, but it is generally found to be co-expressed with one or more subtypes. mRNA of the P2X1, P2X2, P2X3, and P2X6 receptors is found in neurons of dorsal root ganglia (DRG), trigeminal, and nodose ganglia where heteromeric P2X2/P2X3 receptors are found.

Synonyms:

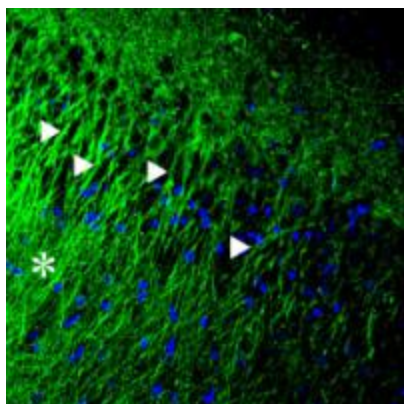
MGC129601; P2X2

Product images:


Western blot analysis of differentiated (lanes 1 and 3) and non-differentiated (lanes 2 and 4) PC12 cell lysates: 1, 2. Anti-P2X2 Receptor antibody, (1:200). 3, 4. Anti-P2X2 Receptor antibody, preincubated with the control peptide antigen.



Expression of P2X2 Receptor in rat neocortex.
Immunohistochemical staining of rat neocortex with Anti-P2X2 Receptor antibody. P2X2 Receptor (green) appears in axonal processes (arrows) that ascend toward the upper cortical layers (asterisk). DAPI is used as the counterstain (blue).



Expression of P2X2 Receptor in rat hippocampus
Immunohistochemical staining of rat hippocampus with Anti-P2X2 Receptor antibody. P2X2 Receptor (green) appears in the apical dendrites (arrows) that extend into the striatum radiatum (asterisk). DAPI is used as the counterstain (blue).