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Product Information

Anti- Purinergic Receptor P2X₃

produced in rabbit, affinity isolated antibody

Catalog Number **P0121**

Product Description

Anti- Purinergic Receptor P2X₃ is produced in rabbit using as immunogen the peptide (C)VEKQSTDSGAYSIGH corresponding to residues 383-397 of rat P2X₃. The antibody is directed against a C-terminus intracellular epitope. The antibody is affinity purified on immobilized antigen.

Anti- Purinergic Receptor P2X₃ recognizes rat P2rx3 (gene ID: 81739). It has 100% homology with mouse P2rx3 (gene ID: 228139). In human 13 out of 15 residues are identical. The antibody has been used in immunoblotting and immunohistochemistry.

The P2X₃ receptor belongs to the ligand-gated ion channel P2X family that consists of seven receptor subtypes named P2X₁-P2X₇ and is activated by extracellular ATP. All P2X subunits, with the exception of P2X₆, can assemble to form homomeric or heteromeric functional channels. The different P2X receptors show distinct expression patterns. P2X₁-P2X₆ has been found in the central and peripheral nervous system, while the P2X₇ receptor is predominantly found in cells of the immune system. The P2X₃ receptor is highly expressed on nociceptive sensory neurons in dorsal root ganglia (DRG) as a homomer or as a heteromer (P2X₃/P2X₂). ATP released from damaged cells activates the P2X₃ receptor to initiate nociceptive signals. Involvement of ATP in the mechanism of chronic pain contributes to P2X₃ receptor as a possible target for the development of pain therapeutics.

Reagent

Supplied as a lyophilized powder from phosphate buffered saline, pH 7.4, containing 1% BSA and 0.05% sodium azide.

Reconstitution

Reconstitute the lyophilized powder with 50 μ L or 200 μ L deionized water, depending on package size. Further dilutions should be made using a carrier protein such as BSA (1-3%).

Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

Storage/Stability

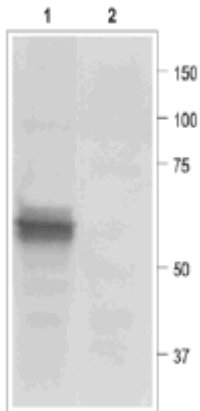
Lyophilized powder can be stored intact at room temperature for several weeks. For extended storage, it should be stored at -20°C or below. The reconstituted solution can be stored at $2-8^{\circ}\text{C}$ for up to 2 weeks. For longer storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. Centrifuge before use. Working dilution samples should be discarded if not used within 12 hours. The antibody is stable for at least 12 months when stored appropriately.

Product Profile

Immunoblotting: a recommended working dilution of 1:200 is determined using rat dorsal root ganglion (DRG) lysates.

Immunohistochemistry: rat embryo DRG formalin frozen sections

Note: In order to obtain best results in different techniques and preparations we recommend determining optimal working concentration by titration test.



Immunoblot of Rat DRG Lysates

Lane 1. Anti-P2X₃ receptor antibody, 1:200

Lane 2. Anti- P2X₃ receptor antibody, preincubated with the control peptide antigen.

References

1. Prasad, M. *et al.*, *J. Physiol.* **573**, 667 (2001).
2. Florenzano, F. *et al.*, *Neuroscience* **115**, 425 (2002).
3. Khakh, B.S. *et al.*, *Pharmacol. Rev.* **53**, 107 (2001).
4. Ding, Y. *et al.*, *J. Auton. Nerv. Syst.* **81**, 289 (2000).
5. Aoki, Y. *et al.*, *Brain Res.* **989**, 214 (2003).

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