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Product Information

Anti-Purinergic Receptor $P2Y_{12}$
produced in rabbit, affinity isolated antibody

Product Number **P4871**

Product Description

Anti-Purinergic Receptor $P2Y_{12}$ is produced in rabbit using a highly purified peptide KTTRPFKTSNP-KNLLGAK, corresponding to amino acid residues 125-142 of human $P2Y_{12}$ with an additional N-terminal cysteine as the immunogen. The epitope is highly conserved in rat and mouse (16/18 residues identical). The antibody was affinity isolated on immobilized immunogen.

Anti-Purinergic Receptor $P2Y_{12}$ specifically recognizes Purinergic Receptor $P2Y_{12}$ protein in rat brain membranes or human platelets by immunoblotting and in mouse brain sections by immunohistochemistry.

The P2Y receptors belong to the G-protein coupled receptors superfamily. They mediate the actions of the extracellular nucleotides (ATP, ADP, UTP, AND UDP). Eight functional mammalian P2Y receptors have been described: P2Y1, P2Y2, P2Y4, P2Y6, P2Y11, P2Y12, P2Y13, and the UDP-glucose receptor, now renamed P2Y14.[1-3] The P2Y12 receptor is co-expressed with P2Y1 receptor on platelets leading to shape change, aggregation, and rise in intracellular calcium upon activation. The only other expression of P2Y12 was found in brain, according to results of reverse transcription-polymerase chain reaction and Northern blotting.[4] The P2Y12 receptor has become a target for potential therapeutic drugs for the treatment of thromboembolism and other clotting disorders.[4]

Reagent

Supplied lyophilized from phosphate buffered saline, pH 7.4, with 1% bovine serum albumin and 0.05 % sodium azide as preservative.

Precautions and Disclaimer

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

Preparation Instructions

Reconstitute the lyophilized vial (200UL SKU) with 0.2 ml deionized water. Antibody dilutions should be made in buffer containing 1-3 % bovine serum albumin.

Storage/Stability

The 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 °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. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Centrifuge all antibody preparations before use (10,000 x *g* for 5 minutes). Working dilution samples should be discarded if not used within 12 hours.

Product Profile

Immunoblotting: the recommended working dilution is 1:200 using rat brain membranes or human platelets.

Note: In order to obtain best results and assay sensitivities of different techniques and preparations, we recommend determining optimal working dilutions by titration test.

References

1. Queiroz, G., *et al*., J. Pharmacol. Exp. Ther,. **307**, 809 (2003).
2. Ralevic, V., and Burnstock G., Pharmacol. Rev., **50**, 413 (1998).
3. Abbracchio, M.P., *et al*., Trends. Pharmacol. Sci,. **24**, 52 (2003).
4. Nicholas, R.A., Mol. Pharmacol., **60**, 416 (2001).

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