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Product Information

Anti-P2Y$_{12}$ Platelet ADP Receptor
produced in rabbit, affinity isolated antibody

Catalog Number **P6997**

Product Description

Anti-P2Y$_{12}$ Platelet ADP Receptor is produced in rabbit using as immunogen a synthetic peptide corresponding to the third cytoplasmic loop of human P2Y$_{12}$ platelet ADP receptor (GeneID 64805) conjugated to KLH. The antibody was affinity isolated on immobilized immunogen.

Anti-P2Y$_{12}$ Platelet ADP Receptor specifically recognizes human P2Y$_{12}$ platelet ADP receptor by immunohistochemistry. The immunizing peptide has 83% homology with the rat gene and 89% homology with the mouse gene. Other species reactivity has not been confirmed.

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 P2Y14 (the UDP-glucose receptor).[1-3] The P2Y12 receptor is co-expressed with the P2Y1 receptor on platelets leading to shape change, aggregation, and rise in intracellular calcium upon activation. P2Y12 has also been found in brain, spinal cord, and in vascular smooth muscle cells.[4, 5] ESTs have been isolated from B-cell/lung/testis, brain, embryo, prostate, eye, kidney carcinoma, and colon carcinoma libraries. The P2Y12 receptor has become a target for potential therapeutic drugs for the treatment of thromboembolism and other clotting disorders, and also could be of benefit in prevention of vasospasm.[4, 5]

Reagent

Supplied as a solution in phosphate buffered saline, pH 7.7, containing 0.1% sodium azide as a preservative.

Antibody concentration: ~1.0 mg/mL

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

For continuous use, store at 2-8 °C for up to one month. For extended 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. Working dilutions should be discarded if not used within 12 hours.

Product Profile

Immunohistochemistry: a working antibody concentration of 7-58 µg/mL is recommended using human megakaryocytes.

Note: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

References

1. Queiroz, G., et al., *J. Pharmacol. Exp. Ther*,. **307**, 809 (2003).
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3. Abbracchio, M. P., et al., *Trends. Pharmacol. Sci*,. **24**, 52 (2003).
4. Nicholas, R. A., *Mol. Pharmacol*., **60**, 416 (2001).
5. Wihlborg, A. K., et al., Arterioscler. Thromb. Vasc. Biol. **24**, 1810-1815 (2004).

This product is manufactured by MBL International Corporation.

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