



Product Information

ANTI- P2Y1 PURINERGIC RECEPTOR

Developed in Rabbit, Affinity Isolated Antibody

Product Number **P 6487**

Product Description

Anti- P2Y1 Purinergic Receptor is developed in rabbit using a highly purified peptide (C)RALIYKDLDNSPLR-RKS corresponding to amino acid residues 242-258 of the rat or human P2Y1 receptor protein, with an additional N-terminal cysteine, conjugated to KLH as the immunogen. The antibody is affinity isolated using immobilized immunogen.

Anti-P2Y1 recognizes P2Y1 protein (66 kDa) from human platelets and rat brain membranes by immunoblotting.

ATP exerts its neuromodulatory effects via activation of purinergic receptors or purinoceptors. Currently, 14 purinergic receptors are known and can be split into two classes: P2X and P2Y, with each class containing seven members.¹ As with many other families of cell surface receptors, these nucleotide receptors possess either ion channel activity (P2X receptors) or act by coupling directly to G proteins to activate intracellular signaling cascades (P2Y receptors).

The P2Y1 receptor subtype is present in brain, heart, skeletal muscle, pancreas, platelets and intestinal smooth muscle. Activation of endothelial P2Y1 receptors by adenosine di- or triphosphates² leads to the release of nitric oxide, relaxing vascular smooth muscle cells and resulting in a hypotensive effect.³

Reagent

Anti-P2Y1 is supplied as affinity isolated antibody lyophilized from phosphate buffered saline containing 1% bovine serum albumin and 0.05% sodium azide.

Reconstitution Instructions

Depending on the package size purchased, reconstitute in 50 or 200 µl of deionized water.

Precautions and Disclaimer

Due to the sodium azide content, a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazardous and safe handling practices.

Storage/Stability

Prior to reconstitution, the lyophilized powder can be stored intact at room temperature for several weeks. Storage over longer periods should be at -20 °C. The reconstituted solution can be stored at 4 °C for up to two weeks. For longer periods, small aliquots should be stored at -20 °C or below. Avoid multiple freezing and thawing. Further dilutions should be made using a carrier protein such as BSA (1%). Centrifuge all antibody preparations before use (10,000 x g for 5 min.).

Product Profile

The recommended working dilution is 1:200-1:400 for immunoblotting using rat brain extract and peroxidase-conjugated goat anti-rabbit IgG with chemiluminescent detection.

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. Sneddon, P., et al., Prog. Brain Res., **120**, 11 (1999).
2. Palmer, R.K., et al., Mol. Pharmacol., **54**, 1118-1123 (1998).
3. Boyer, J.L., et al., Br. J. Pharmacol., **118**, 1959-1964 (1996).

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