



Polyclonal Anti- Purinergic receptor P2X, ligand-gated ion channel 3, P2X3 (Sepharose Bead Conjugate)

Catalogue No. PA1213-S

Lot No. 09C01

Ig type: rabbit IgG

Size: 100µg/vial

Specificity

Human, mouse, rat. No cross reactivity with other proteins.

Recommended application

(Immunoprecipitation(IP))

Immunogen

A synthetic peptide corresponding to a sequence at the C-terminal of human P2X3, different from the related rat sequence by one amino acid.

Purification

Immunogen affinity purified.

Formulation

50% slurry in PBS pH 7.2 with 0.01mg NaN₃ preservative.

Storage

Store at 4°C for frequent use.

Description:

This Antagene antibody is immobilized via covalent binding of primary amino groups to N-hydroxysuccinimide (NHS)-activated sepharose beads. It is useful for immunoprecipitation assays

BACKGROUND

Purinergic receptor P2X, ligand-gated ion channel, 3, also known as P2X3, is a human gene. Its gene is mapped to 11q12. P2X purinoceptors are 397 to 492 amino acids long and have a predicted structure of 2 short intracellular domains, 2 transmembrane-spanning regions, and a large extracellular domain. The P2X3 subunit has 43% and 47% identity with P2X1 and P2X2, respectively; 10 cysteine residues are conserved in all 3 subtypes, so that tertiary structures may also be conserved.¹ P2X3 was the only ligand-gated channel known to be expressed exclusively by a subset of sensory neurons. The remarkable selectivity of expression of the channel, coupled with a sensory neuron-like pharmacology, suggested that it may transduce ATP-evoked nociceptor activation.² If ATP, and more specifically, P2X3 purinoceptors are involved in nociception, then the development of an antagonist selective for P2X3 could prove useful in pain relief. Lack of P2X3 in other tissues than sensory ganglia could afford a degree of specificity, leading to fewer side effects.³

REFERENCE

1. Kennedy, C.; Leff, P. : Painful connection for ATP. *Nature* 377: 385-386, 1995. 2. Chen, C.-C.; Akopian, A. N.; Sivilotti, L.; Colquhoun, D.; Burnstock, G.; Wood, J. N. : A P2X purinoceptor expressed by a subset of sensory neurons. *Nature* 377: 428-430, 1995. 3. Kennedy, C.; Leff, P. : Painful connection for ATP. *Nature* 377: 385-386, 1995.

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