SANTA CRUZ BIOTECHNOLOGY, INC.

P2X5 (V-19): sc-15192

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The P2X receptor family is comprised of ligand-gated ion channels that allow for the increased permeability of calcium into the cell in response to extracellular ATP. The seven P2X receptors, P2X1-P2X7, form either homomeric or heteromeric channels or both. They are characterized by intracellular amino- and carboxy-termini. P2X receptors are expressed in a wide variety of tissues, including neurons, prostate, bladder, pancreas, colon, testis and ovary. The major function of the P2X receptors is to mediate synaptic transmissions between neurons and to other tissues via the binding of extracellular ATP, which acts as a neurotransmitter. The P2X receptors may be involved in the onset of necrosis or apoptosis after prolonged exposure to high concentrations of extracellular ATP.

CHROMOSOMAL LOCATION

Genetic locus: P2RX5 (human) mapping to 17p13.2; P2rx5 (mouse) mapping to 11 B4.

SOURCE

P2X5 (V-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of P2X5 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-15192 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

P2X5 (V-19) is recommended for detection of P2X5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for P2X5 siRNA (h): sc-42571, P2X5 siRNA (m): sc-42572, P2X5 shRNA Plasmid (h): sc-42571-SH, P2X5 shRNA Plasmid (m): sc-42572-SH, P2X5 shRNA (h) Lentiviral Particles: sc-42571-V and P2X5 shRNA (m) Lentiviral Particles: sc-42572-V.

Molecular Weight of homomeric P2X5: 70 kDa.

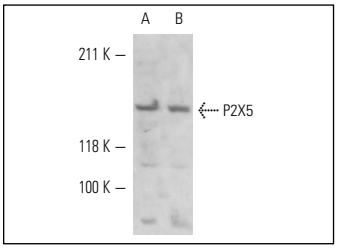
Molecular Weight of dimeric P2X5: 140 kDa.

Positive Controls: SK-N-MC cell lysate: sc-2237 or Caki-1 cell lysate: sc-2224.

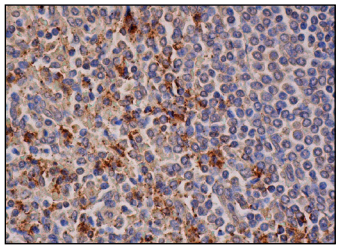
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



P2X5 (V-19): sc-15192. Western blot analysis of P2X5 expression in SK-N-MC (**A**) and Jurkat (**B**) whole cell lysates.



P2X5 (V-19): sc-15192. Immunoperoxidase staining of formalin fixed, paraffin-embedded human spleen tissue showing cytoplasmic staining of cells in white pulp and cells in red pulp.

SELECT PRODUCT CITATIONS

1. Rodrigues, R.J., et al. 2005. Dual presynaptic control by ATP of glutamate release via facilitatory P2X1, P2X2/3, and P2X3 and inhibitory P2Y1, P2Y2, and/or P2Y4 receptors in the rat hippocampus. J. Neurosci. 25: 6286-6295.
2. Amadio, S., et al. 2005. Differences in the neurotoxicity profile induced by ATP and ATPγS in cultured cerebellar granule neurons. Neurochem. Int. 47: 334-342.
3. Mariggiò, S., et al. 2006. A novel pathway of cell growth regulation mediated by a PLA2α-derived phosphoinositide metabolite. FASEB J. 20: 2567-2569.
4. Hodges, R.R., et al. 2011. Identification of $P2X_3$ and $P2X_7$ purinergic receptors activated by ATP in rat lacrimal gland. Invest. Ophthalmol. Vis. Sci. 52: 3254-3263.