SANTA CRUZ BIOTECHNOLOGY, INC.

P2X6 (Y-15): sc-15197

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: P2RX6 (human) mapping to 22q11.21; P2rx6 (mouse) mapping to 16 A3.

SOURCE

P2X6 (Y-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of P2X6 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-15197 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.

APPLICATIONS

P2X6 (Y-15) is recommended for detection of P2X6 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

P2X6 (Y-15) is also recommended for detection of P2X6 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for P2X6 siRNA (h): sc-42573, P2X6 siRNA (m): sc-42574, P2X6 shRNA Plasmid (h): sc-42573-SH, P2X6 shRNA Plasmid (m): sc-42574-SH, P2X6 shRNA (h) Lentiviral Particles: sc-42573-V and P2X6 shRNA (m) Lentiviral Particles: sc-42574-V.

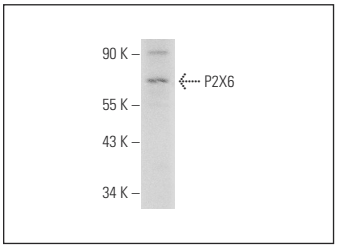
Molecular Weight of P2X6: 49-70 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210 or L8 cell lysate: sc-3807.

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.

DATA



P2X6 (Y-15): sc-15197. Western blot analysis of P2X6 expression in NIH/3T3 whole cell lysate.

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. Resende, R.R., et al. 2007. P19 embryonal carcinoma cells as *in vitro* model for studying purinergic receptor expression and modulation of N-methyl-D-aspartate-glutamate and acetylcholine receptors during neur-onal differentiation. Neuroscience 146: 1169-1181.
3. Matta, C., et al. 2014. Purinergic signalling is required for calcium oscillations in migratory chondrogenic progenitor cells. Pflugers Arch. 467: 429-442.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.