SANTA CRUZ BIOTECHNOLOGY, INC.

P2X3 (H-60): sc-25694

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: P2RX3 (human) mapping to 11q12.1; P2rx3 (mouse) mapping to 2 D.

SOURCE

P2X3 (H-60) is a rabbit polyclonal antibody raised against amino acids 338-397 mapping at the C-terminus of P2X3 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.

STORAGE

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

APPLICATIONS

P2X3 (H-60) is recommended for detection of P2X3 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).

P2X3 (H-60) is also recommended for detection of P2X3 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for P2X3 siRNA (h): sc-42567, P2X3 siRNA (m): sc-42568, P2X3 shRNA Plasmid (h): sc-42567-SH, P2X3 shRNA Plasmid (m): sc-42568-SH, P2X3 shRNA (h) Lentiviral Particles: sc-42567-V and P2X3 shRNA (m) Lentiviral Particles: sc-42568-V.

Molecular Weight of P2X3: 44 kDa.

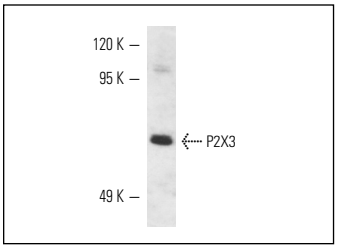
Molecular Weight of glycosylated P2X3: 66 kDa.

Positive Controls: MTE1D whole cell lysate: sc-364918.

RESEARCH USE

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

DATA



P2X3 (H-60): sc-25694. Western blot analysis of P2X3 expression in MTE1D whole cell lysate.

SELECT PRODUCT CITATIONS

1. Wirkner, K., et al. 2008. Regulation of the pH sensitivity of human P2X receptors by N-linked glycosylation. J. Neurochem. 107: 1216-1224.
2. Bulanova, E., et al. 2009. ATP induces P2X7 receptor-independent cytokine and chemokine expression through P2X1 and P2X3 receptors in murine mast cells. J. Leukoc. Biol. 85: 692-702.
3. Stanchev, D., et al. 2009. Cross-inhibition between native and recombinant TRPV1 and P2X3 receptors. Pain 143: 26-36.
4. Nair, A., et al. 2010. Familial hemiplegic migraine $Ca_v2.1$ channel mutation R192Q enhances ATP-gated P2X3 receptor activity of mouse sensory ganglion neurons mediating trigeminal pain. Mol. Pain 6: 48.
5. Nunes, A.R., et al. 2012. Effect of development on $[Ca^{2+}]_i$ transients to ATP in petrosal ganglion neurons: a pharmacological approach using optical recording. J. Appl. Physiol. 112: 1393-1402.
6. Gnanasekaran, A., et al. 2013. Calcium/calmodulin-dependent serine protein kinase (CASK) is a new intracellular modulator of P2X3 receptors. J. Neurochem. 126: 102-112.
7. Svennersten, K., et al. 2015. Localization of P2X receptor subtypes 2, 3 and 7 in human urinary bladder. BMC Urol. 15: 81.

PROTOCOLS

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