

P2X7 (L-20): sc-15200

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: P2RX7 (human) mapping to 12q24.31; P2rx7 (mouse) mapping to 5 F.

SOURCE

P2X7 (L-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of P2X7 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-15200 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

P2X7 (L-20) is recommended for detection of P2X7 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

P2X7 (L-20) is also recommended for detection of P2X7 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for P2X7 siRNA (h): sc-42575, P2X7 siRNA (m): sc-42576, P2X7 shRNA Plasmid (h): sc-42575-SH, P2X7 shRNA Plasmid (m): sc-42576-SH and P2X7 shRNA (h) Lentiviral Particles: sc-42575-V, P2X7 shRNA (m) Lentiviral Particles: sc-42576-V.

Molecular Weight of native P2X7: 65 kDa.

Molecular Weight of glycosylated P2X7: 85 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201 or rat pancreas extract: sc-364806.

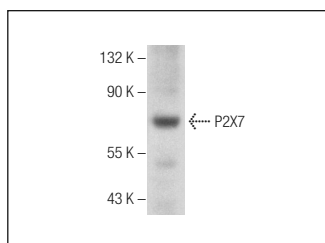
STORAGE

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.

DATA



P2X7 (L-20): sc-15200. Western blot analysis of P2X7 expression in rat pancreas tissue extract.

SELECT PRODUCT CITATIONS

- Budagian, V., et al. 2003. Signaling through P2X7 receptor in human T cells involves p56 Lck, MAP kinases, and transcription factors AP1 and NFκB. *J. Biol. Chem.* 278: 1549-1560.
- Marshall, L.J., et al. 2003. Plasminogen activator inhibitor-1 supports IL-8-mediated neutrophil transendothelial migration by inhibition of the constitutive shedding of endothelial IL-8/heparan sulfate/syndecan-1 complexes. *J. Immunol.* 171: 2057-2065.
- Zhang, X.J., et al. 2004. Expression of P2X7 in human hematopoietic cell lines and leukemia patients. *Leuk. Res.* 28: 1313-1322.
- Bulanova, E., et al. 2005. Extracellular ATP induces cytokine expression and apoptosis through P2X7 receptor in murine mast cells. *J. Immunol.* 174: 3880-3890.
- Yeung, D., et al. 2006. Increased susceptibility to ATP via alteration of P2X receptor function in dystrophic mdx mouse muscle cells. *FASEB J.* 20: 610-620.
- Hansen, M.R., et al. 2008. Purinergic receptors and calcium signalling in human pancreatic duct cell lines. *Cell. Physiol. Biochem.* 22: 157-168.

PROTOCOLS

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



Try **P2X7 (D-1): sc-514962** or **P2X7 (Hano43): sc-134224**, our highly recommended monoclonal alternatives to P2X7 (L-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **P2X7 (D-1): sc-514962**.