

P2X2 (H-116): sc-25693

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. There are seven P2X receptors, P2X1, P2X2, P2X3, P2X4, P2X5, P2X6, P2X7, which form either homomeric or heteromeric channels or both, and 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.

REFERENCES

1. Longhurst, P.A., et al. 1996. The human P2X1 receptor: molecular cloning, tissue distribution, and localization to chromosome 17. *Biochim. Biophys. Acta* 1308: 185-188.
2. Di Virgilio, F., et al. 1998. Cytolytic P2X purinoceptors. *Cell Death Differ.* 5: 191-199.

CHROMOSOMAL LOCATION

Genetic locus: P2RX2 (human) mapping to 12q24.33; P2rx2 (mouse) mapping to 5 F.

SOURCE

P2X2 (H-116) is a rabbit polyclonal antibody raised against amino acids 356-471 mapping at the C-terminus of P2X2 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.

RESEARCH USE

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

APPLICATIONS

P2X2 (H-116) is recommended for detection of P2X2 of human and, to a lesser extent, mouse and rat 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 P2X2 siRNA (h): sc-42565, P2X2 siRNA (m): sc-42566, P2X2 shRNA Plasmid (h): sc-42565-SH, P2X2 shRNA Plasmid (m): sc-42566-SH, P2X2 shRNA (h) Lentiviral Particles: sc-42565-V and P2X2 shRNA (m) Lentiviral Particles: sc-42566-V.

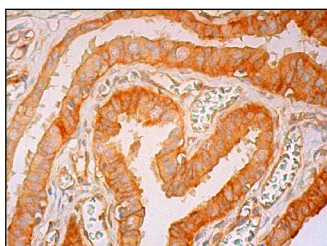
Molecular Weight of P2X2 isoforms: 41-55 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



P2X2 (H-116): sc-25693. Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing cytoplasmic and membrane staining of glandular cells.

SELECT PRODUCT CITATIONS

1. 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.
2. Svennersten, K., et al. 2015. Localization of P2X receptor subtypes 2, 3 and 7 in human urinary bladder. *BMC Urol.* 15: 81.

STORAGE

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

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **P2X2 (3D5): sc-293319**, our highly recommended monoclonal alternative to P2X2 (H-116).