

P2X5 (A-11): sc-398682

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.

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.
3. Alexander, K., et al. 1999. Allosteric modulation and accelerated resensitization of human P2X₃ receptors by cibacron blue. *J. Pharmacol. Exp. Ther.* 291: 1135-1142.
4. Burnstock, G. 2000. P2X receptors in sensory neurones. *Br. J. Anaesth.* 84: 476-488.
5. Oury, C., et al. 2000. A natural dominant negative P2X1 receptor due to deletion of a single amino acid residue. *J. Biol. Chem.* 275: 22611-22614.
6. Ding, S., et al. 2000. Inactivation of P2X2 purinoceptors by divalent cations. *J. Physiol.* 522: 199-214.

CHROMOSOMAL LOCATION

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

SOURCE

P2X5 (A-11) is a mouse monoclonal antibody raised against amino acids 356-455 mapping at the C-terminus of P2X5 of rat origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

P2X5 (A-11) is available conjugated to agarose (sc-398682 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398682 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398682 PE), fluorescein (sc-398682 FITC), Alexa Fluor® 488 (sc-398682 AF488), Alexa Fluor® 546 (sc-398682 AF546), Alexa Fluor® 594 (sc-398682 AF594) or Alexa Fluor® 647 (sc-398682 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398682 AF680) or Alexa Fluor® 790 (sc-398682 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

P2X5 (A-11) is recommended for detection of P2X5 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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 P2X5 homomeric: 70 kDa.

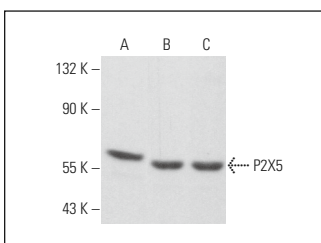
Molecular Weight of P2X5 dimeric: 140 kDa.

Positive Controls: Neuro-2A whole cell lysate: sc-364185, TF-1 cell lysate: sc-2412 or Raji whole cell lysate: sc-364236.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



P2X5 (A-11): sc-398682. Western blot analysis of P2X5 expression in Neuro-2A (A), TF-1 (B) and Raji (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Garcia, R.A., et al. 2016. Evaluation of markers of beige adipocytes in white adipose tissue of the mouse. *Nutr. Metab.* 13: 24.

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.