

P2X5 (H-5): sc-365036

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. North, R.A., et al. 2000. Pharmacology of cloned P2X receptors. *Annu. Rev. Pharmacol. Toxicol.* 40: 563-580.
5. Burnstock, G. 2000. P2X receptors in sensory neurones. *Br. J. Anaesth.* 84: 476-488.
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 (H-5) is a mouse monoclonal antibody raised against amino acids 332-421 mapping at the C-terminus of P2X5 of human 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 (H-5) is available conjugated to agarose (sc-365036 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365036 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365036 PE), fluorescein (sc-365036 FITC), Alexa Fluor[®] 488 (sc-365036 AF488), Alexa Fluor[®] 546 (sc-365036 AF546), Alexa Fluor[®] 594 (sc-365036 AF594) or Alexa Fluor[®] 647 (sc-365036 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-365036 AF680) or Alexa Fluor[®] 790 (sc-365036 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

P2X5 (H-5) 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 homomeric P2X5: 70 kDa.

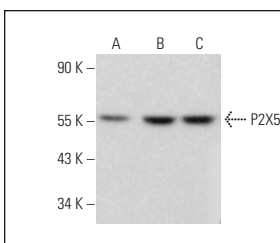
Molecular Weight of dimeric P2X5: 140 kDa.

Positive Controls: Sol8 cell lysate: sc-2249, L6 whole cell lysate: sc-364196, or C2C12 whole cell lysate: sc-364188.

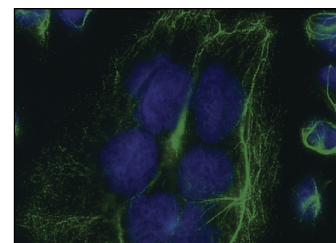
RECOMMENDED SUPPORT REAGENTS

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 (H-5): sc-365036. Western blot analysis of P2X5 expression in Sol8 (A), L6 (B) and C2C12 (C) whole cell lysates.



P2X5 (H-5): sc-365036. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization. Note DAPI nuclear counterstain from UltraCruz[™] Hard-set Mounting Medium (sc-359850).

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.