

P2X6 (D-1): sc-166013

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.
7. North, R.A., et al. 2000. Pharmacology of cloned P2X receptors. *Annu. Rev. Pharmacol. Toxicol.* 40: 563-580.

CHROMOSOMAL LOCATION

Genetic locus: P2RX6 (human) mapping to 22q11.21.

SOURCE

P2X6 (D-1) is a mouse monoclonal antibody raised against amino acids 351-431 mapping at the C-terminus of P2X6 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

P2X6 (D-1) is available conjugated to agarose (sc-166013 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166013 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166013 PE), fluorescein (sc-166013 FITC), Alexa Fluor[®] 488 (sc-166013 AF488), Alexa Fluor[®] 546 (sc-166013 AF546), Alexa Fluor[®] 594 (sc-166013 AF594) or Alexa Fluor[®] 647 (sc-166013 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-166013 AF680) or Alexa Fluor[®] 790 (sc-166013 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

P2X6 (D-1) is recommended for detection of P2X6 of 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 P2X6 siRNA (h): sc-42573, P2X6 shRNA Plasmid (h): sc-42573-SH and P2X6 shRNA (h) Lentiviral Particles: sc-42573-V.

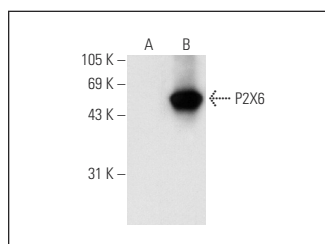
Molecular Weight of P2X6 glycosylation: 49-70 kDa.

Positive Controls: P2X6 (h): 293T Lysate: sc-112163.

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



P2X6 (D-1): sc-166013. Western blot analysis of P2X6 expression in non-transfected: sc-117752 (A) and human P2X6 transfected: sc-112163 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Zhang, Q., et al. 2014. Effects of ischemia and oxidative stress on bladder purinoceptors expression. *Urology* 84: 1249.

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.

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