

P2X3 (B-5): sc-390572

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: P2RX3 (human) mapping to 11q12.1; P2rx3 (mouse) mapping to 2 D.

SOURCE

P2X3 (B-5) is a mouse monoclonal antibody raised against amino acids 338-397 mapping at the C-terminus of P2X3 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.

P2X3 (B-5) is available conjugated to agarose (sc-390572 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390572 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390572 PE), fluorescein (sc-390572 FITC), Alexa Fluor® 488 (sc-390572 AF488), Alexa Fluor® 546 (sc-390572 AF546), Alexa Fluor® 594 (sc-390572 AF594) or Alexa Fluor® 647 (sc-390572 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390572 AF680) or Alexa Fluor® 790 (sc-390572 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

P2X3 (B-5) is recommended for detection of P2X3 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 P2X3 siRNA (h): sc-42567, P2X3 siRNA (m): sc-42568, P2X3 shRNA Plasmid (h): sc-42567-SH, P2X3 shRNA Plasmid (m): sc-42568-SH, P2X3 shRNA (h) Lentiviral Particles: sc-42567-V and P2X3 shRNA (m) Lentiviral Particles: sc-42568-V.

Molecular Weight of P2X3: 44 kDa.

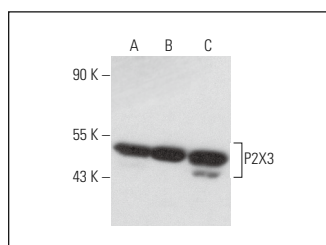
Molecular Weight of glycosylated P2X3: 66 kDa.

Positive Controls: RT-4 whole cell lysate: sc-364257, T24 cell lysate: sc-2292 or Hep G2 cell lysate: sc-2227.

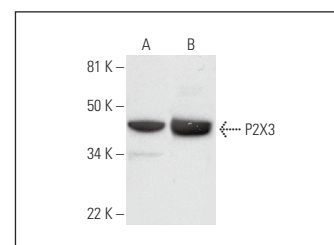
RECOMMENDED SUPPORT REAGENTS

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



P2X3 (B-5): sc-390572. Western blot analysis of P2X3 expression in RT-4 (A), HT-1080 (B) and MCF7 (C) whole cell lysates.



P2X3 (B-5): sc-390572. Western blot analysis of P2X3 expression in T24 (A) and Hep G2 (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Smith, J.R., et al. 2020. Metabo and mechanoreceptor expression in human heart failure: relationships with the locomotor muscle afferent influence on exercise responses. *Exp. Physiol.* 105: 809-818.
- Dong, X., et al. 2022. Upregulation of P2X3 receptors in primary afferent pathways involves in colon-to-bladder cross-sensitization in rats. *Front. Physiol.* 13: 920044.

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.

PROTOCOLS

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