

IP3R-III (C-20): sc-7277

BACKGROUND

Inositol 1,4,5-triphosphate (IP3) functions as a second messenger for a myriad of extracellular stimuli including hormones, growth factors and neurotransmitters. Receptor tyrosine kinases indirectly increase the intracellular levels of IP3 through the activation of phospholipases such as phospholipase C (PLC), which convert phosphatidylinositol-4,5 bisphosphate into IP3 and diacylglycerol (DAG). The inositol 1,4,5-triphosphate receptor, IP3R, acts as an inositol triphosphate (IP3)-gated calcium release channel in a variety of cell types. Three IP3 receptor subtypes have been described and are designated IP3R-I, IP3R-II and IP3R-III. IP3R-I is the predominant IP3R subtype expressed in neuronal tissues and the central nervous system, but is also expressed at high levels in the liver.

CHROMOSOMAL LOCATION

Genetic locus: ITPR3 (human) mapping to 6p21.31; Itpr3 (mouse) mapping to 17 A3.3.

SOURCE

IP3R-III (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of IP3R-III 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.

Blocking peptide available for competition studies, sc-7277 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IP3R-III (C-20) is recommended for detection of IP3R-III of mouse, rat and human 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); may cross-react with IP3R-II.

IP3R-III (C-20) is also recommended for detection of IP3R-III in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for IP3R-III siRNA (h): sc-42477, IP3R-III siRNA (m): sc-42478, IP3R-III shRNA Plasmid (h): sc-42477-SH, IP3R-III shRNA Plasmid (m): sc-42478-SH, IP3R-III shRNA (h) Lentiviral Particles: sc-42477-V and IP3R-III shRNA (m) Lentiviral Particles: sc-42478-V.

Molecular Weight of IP3R-II: 250 kDa.

Positive Controls: IP3R-III (m): 293T Lysate: sc-121093 or HuT 78 whole cell lysate: sc-2208.

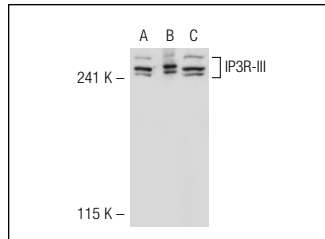
STORAGE

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.

DATA



IP3R-III (C-20): sc-7277. Western blot analysis of IP3R-III expression in non-transfected 293T: sc-117752 (A), mouse IP3R-III transfected 293T: sc-121093 (B) and HuT 78 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Rosado, J., et al. 2000. Coupling between inositol 1,4,5-trisphosphate receptors and human transient receptor potential channel 1 when intracellular Ca^{2+} stores are depleted. *Biochem. J.* 350: 631-635.
- Tachibana, T., et al. 2003. Immunohistochemical expressions of mGluR5, P2Y2 receptor, PLC- β 1, and IP3R-I and -II in Merkel cells in rat sinus hair follicles. *Histochem. Cell Biol.* 120: 13-21.
- Tong, Q., et al. 2004. Erythropoietin-modulated calcium influx through TRPC2 is mediated by phospholipase C γ and IP3R. *Am. J. Physiol. Cell Physiol.* 287: C1667-C1678.
- Galeotti, N., et al. 2007. Knockdown of the type 2 and 3 inositol 1,4,5-trisphosphate receptors suppresses muscarinic antinociception in mice. *Neuroscience* 149: 409-420.
- Xu, C., et al. 2008. Bcl-1 regulates endoplasmic reticulum Ca^{2+} homeostasis downstream of Bcl-2 family proteins. *J. Biol. Chem.* 283: 11477-11484.
- Galeotti, N., et al. 2008. An antidepressant behaviour in mice carrying a gene-specific InsP3R1, InsP3R2 and InsP3R3 protein knockdown. *Neuropharmacology* 55: 1156-1164.
- Wei, C., et al. 2009. Calcium flickers steer cell migration. *Nature* 457: 901-905.
- Nalaskowski, M.M., et al. 2011. Human inositol 1,4,5-trisphosphate 3-kinase isoform B (IP3KB) is a nucleocytoplasmic shuttling protein specifically enriched at cortical actin filaments and at invaginations of the nuclear envelope. *J. Biol. Chem.* 286: 4500-4510.


 MONOS
Satisfaction
Guaranteed

Try **IP3R-I/II/III (B-2): sc-377518**, our highly recommended monoclonal alternative to IP3R-III (C-20).