

IP3R-I (C-20): sc-6093

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: ITPR1 (human) mapping to 3p26.1; Itpr1 (mouse) mapping to 6 E1.

SOURCE

IP3R-I (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of IP3R-I of mouse 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-6093 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

IP3R-I (C-20) is recommended for detection of IP3R-I 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).

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

Suitable for use as control antibody for IP3R-I siRNA (h): sc-42475, IP3R-I siRNA (m): sc-42476, IP3R-I shRNA Plasmid (h): sc-42475-SH, IP3R-I shRNA Plasmid (m): sc-42476-SH, IP3R-I shRNA (h) Lentiviral Particles: sc-42475-V and IP3R-I shRNA (m) Lentiviral Particles: sc-42476-V.

Molecular Weight of IP3R-I monomer: 313 kDa.

Positive Controls: HuT 78 whole cell lysate: sc-2208 or mouse brain extract: sc-2253.

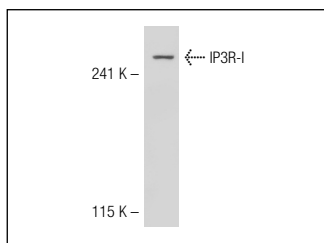
STORAGE

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-I (C-20): sc-6093. Western blot analysis of IP3R-I expression in HuT 78 whole cell lysate.

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 Ca²⁺ stores are depleted. *Biochem. J.* 350: 631-635.
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- Yaroslavskiy, B.B., et al. 2010. Functional osteoclast attachment requires inositol-1,4,5-trisphosphate receptor-associated cGMP-dependent kinase substrate. *Lab. Invest.* 90: 1533-1542.
- 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.
- Odagiri, S., et al. 2011. Immunohistochemical study of microscopic globular bodies of normal human brain. *Biomed. Res.* 32: 337-342.



Try **IP3R-I (E-8): sc-271197**, our highly recommended monoclonal alternative to IP3R-I (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **IP3R-I (E-8): sc-271197**.