**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.

**REFERENCES**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

IP3R-I (E-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of IP3R-I 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-26382 P (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

**STORAGE**

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**APPLICATIONS**

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

**RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100000) or Cruz Marker™ compatible donkey anti--goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

**DATA**

**RESEARCH USE**

For research use only, not for use in diagnostic procedures.