TRANSPARENT RECEPTOR POTENTIAL CATION (TRPC) channels are a superfamília of six transmembrane segment-spanning, gated cation channels. TRPC subtypes mediate store-operated Ca\(^{2+}\) entry, a process involving Ca\(^{2+}\) influx and replenishment of Ca\(^{2+}\) stores formerly emptied through the action of inositol 1,4,5-trisphosphate production and other Ca\(^{2+}\) mobilizing agents. TRPC ion channels influence calcium-depletion induced calcium influx processes in response to chemo-, mechano- and osmoregulatory events. Human TRPC1 protein is a 793 amino acid cation channel that is expressed in fetal and adult brain, and adult heart, testis and ovary, where it may influence store-operated Ca\(^{2+}\) entry as a component of capacitative calcium entry (CCE) complexes. The activation of store-mediated Ca\(^{2+}\) entry in human cells occurs through the association between inositol1,4,5-trisphosphate receptors and TRPC1.

**CHROMOSOMAL LOCATION**

Genetic locus: TRPC1 (human) mapping to 3q23; Trpc1 (mouse) mapping to 9 E3.3.

**SOURCE**

TRPC1 (E-6) is a mouse monoclonal antibody raised against amino acids 689-793 mapping at the C-terminus of TRPC1 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.

TRPC1 (E-6) is available conjugated to agarose (sc-133076 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-133076 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycocyanin (sc-133076 PE), fluorescein (sc-133076 FITC), Alexa Fluor® 488 (sc-133076 AF488) or Alexa Fluor® 647 (sc-133076 AF647), 200 µg/ml, for IF, IHC(P) and FCM.

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**APPLICATIONS**

TRPC1 (E-6) is recommended for detection of TRPC1 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

TRPC1 (E-6) is also recommended for detection of TRPC1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for TRPC1 siRNA (h): sc-42664, TRPC1 siRNA (m): sc-42665, TRPC1 shRNA Plasmid (h): sc-42664-SH, TRPC1 shRNA Plasmid (m): sc-42665-SH, TRPC1 shRNA (h) Lentiviral Particles: sc-42664-V and TRPC1 shRNA (m) Lentiviral Particles: sc-42665-V.

Molecular Weight of TRPC1: 88 kDa.

Positive Controls: rat testis extract: sc-2400, mouse testis extract: sc-2405 or c4 whole cell lysate: sc-364186.