SANTA CRUZ BIOTECHNOLOGY, INC.

DANGER (K-12): sc-164145

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

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. DANGER, also known as inositol 1,4,5-triphosphate receptor-interacting protein (ITPRIP) or KIAA1754, is a 547 amino acid protein that interacts with IP3 receptors. Localized to the cell membrane, DANGER enhances Ca^{2+}-regulated inhibition of IP3R Ca^{2+} release. The gene that encodes DANGER maps to human chromosome 10. Spanning nearly 135 million base pairs, chromosome 10 makes up approximately 4.5% of total DNA in cells and encodes nearly 1,200 genes. Several protein-coding genes, including those that encode for chemokines, cadherins, excision repair proteins, early growth response factors (Egrs) and fibroblast growth receptors (FGFRs), are located on chromosome 10.

REFERENCES

1. Johnson, P., et al. 1992. Friend virus induced murine erythroleukaemia: the p53 locus. Cancer Surv. 12: 137-151.
2. Blondel, O., et al. 1993. Sequence and functional characterization of a third inositol trisphosphate receptor subtype, IP3R-3, expressed in pancreatic islets, kidney, gastrointestinal tract, and other tissues. J. Biol. Chem. 268: 11356-11363.
3. Cameron, A.M., et al. 1995. Calcineurin associated with the inositol 1,4,5-trisphosphate receptor-FKBP12 complex modulates Ca^{2+} flux. Cell 83: 463-472.
4. Deloukas, P., et al. 2000. Report of the third international workshop on human chromosome 10 mapping and sequencing 1999. Cytogenet. Cell Genet. 90: 1-12.
5. van Rossum, D.B., et al. 2006. DANGER, a novel regulatory protein of inositol 1,4,5-trisphosphate-receptor activity. J. Biol. Chem. 281: 37111-37116.

CHROMOSOMAL LOCATION

Genetic locus: ITPRIP (human) mapping to 10q25.1; Itprip (mouse) mapping to 19 D1.

SOURCE

DANGER (K-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of DANGER 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-164145 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

DANGER (K-12) is recommended for detection of DANGER of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

DANGER (K-12) is also recommended for detection of DANGER in additional species, including equine and porcine.

Suitable for use as control antibody for DANGER siRNA (h): sc-90407, DANGER siRNA (m): sc-142872, DANGER shRNA Plasmid (h): sc-90407-SH, DANGER shRNA Plasmid (m): sc-142872-SH, DANGER shRNA (h) Lentiviral Particles: sc-90407-V and DANGER shRNA (m) Lentiviral Particles: sc-142872-V.

Molecular Weight of DANGER: 62 kDa.

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: 1:2000-1:100,000) 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-2333 and Western Blotting Luminol Reagent: sc-2048. 2) 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.

RESEARCH USE

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

PROTOCOLS

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