

TROP-2 (G-15): sc-103909

BACKGROUND

TROP-2, also known as tumor-associated calcium signal transducer 2 (TACSTD2); pancreatic carcinoma marker protein GA733-1; membrane component chromosome 1, surface marker 1 (M1S1); or epithelial glycoprotein-1 (EGP-1), is a cell surface glycoprotein receptor. It is a single pass type I membrane protein containing one thyroglobulin type 1 domain, an epidermal growth factor-like repeat, a phosphatidylinositol binding site and tyrosine phosphorylation sites near the C-terminus. TROP-2 plays a role in transducing intracellular calcium signals. It is expressed in trophoblast cells, cornea and multistratified epithelia. It is also highly expressed in several types of tumors and is involved in regulating the growth of carcinoma cells. Mutations in the gene encoding TROP-2 can result in gelatinous drop-like corneal dystrophy (GDLD), also referred to as lattice corneal dystrophy type III, an autosomal recessive disorder that causes severe visual impairment.

REFERENCES

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3. Tsujikawa, M., et al. 1999. Identification of the gene responsible for gelatinous drop-like corneal dystrophy. *Nat. Genet.* 21: 420-423.
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5. Ren, Z., et al. 2002. Allelic and locus heterogeneity in autosomal recessive gelatinous drop-like corneal dystrophy. *Hum. Genet.* 110: 568-577.
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8. Shimada, A., et al. 2005. Establishment of an immortalized cell line from a precancerous lesion of lung adenocarcinoma, and genes highly expressed in the early stages of lung adenocarcinoma development. *Cancer Sci.* 96: 668-675.
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CHROMOSOMAL LOCATION

Genetic locus: TACSTD2 (human) mapping to 1p32.1; Tacstd2 (mouse) mapping to 6 C1.

SOURCE

TROP-2 (G-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of TROP-2 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-103909 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TROP-2 (G-15) is recommended for detection of TROP-2 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).

Suitable for use as control antibody for TROP-2 siRNA (h): sc-72392, TROP-2 siRNA (m): sc-72393, TROP-2 shRNA Plasmid (h): sc-72392-SH, TROP-2 shRNA Plasmid (m): sc-72393-SH, TROP-2 shRNA (h) Lentiviral Particles: sc-72392-V and TROP-2 shRNA (m) Lentiviral Particles: sc-72393-V.

Molecular Weight of TROP-2: 40 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.

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.

PROTOCOLS

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



Try **TROP-2 (B-9): sc-376746** or **TROP-2 (F-5): sc-376181**, our highly recommended monoclonal alternatives to TROP-2 (G-15). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **TROP-2 (B-9): sc-376746**.