SANTA CRUZ BIOTECHNOLOGY, INC.

TROP-2 (H-85): sc-98472

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 thryoglobulin 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 tranducing 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

1. Linnenbach, A.J., et al. 1989. Sequence investigation of the major gastrointestinal tumor-associated antigen gene family, GA733. Proc. Natl. Acad. Sci. USA 86: 27-31.
2. Fornaro, M., et al. 1995. Cloning of the gene encoding TROP-2, a cell-surface glycoprotein expressed by human carcinomas. Int. J. Cancer 62: 610-618.
3. Tsujikawa, M., et al. 1999. Identification of the gene responsible for gelatinous drop-like corneal dystrophy. Nat. Genet. 21: 420-423.
4. Tasa, G., et al. 2001. A novel mutation in the M1S1 gene responsible for gelatinous droplike corneal dystrophy. Invest. Ophthalmol. Vis. Sci. 42: 2762-2764.
5. Ren, Z., et al. 2002. Allelic and locus heterogeneity in autosomal recessive gelatinous drop-like corneal dystrophy. Hum. Genet. 110: 568-577.
6. Murakami, A., et al. 2004. Mutations in the membrane component, chromosome 1, surface marker 1 (M1S1) gene in gelatinous drop-like corneal dystrophy. Jpn. J. Ophthalmol. 48: 317-320.

CHROMOSOMAL LOCATION

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

SOURCE

TROP-2 (H-85) is a rabbit polyclonal antibody raised against amino acids 141-225 mapping within an internal region 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.

STORAGE

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

APPLICATIONS

TROP-2 (H-85) is recommended for detection of TROP-2 of human and, to a lesser extent, mouse and rat 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).

TROP-2 (H-85) is also recommended for detection of TROP-2 in additional species, including porcine.

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.

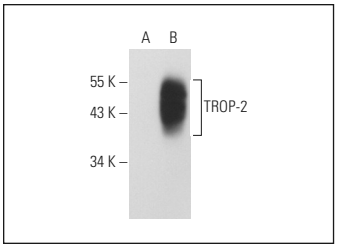
Molecular Weight of TROP-2: 40 kDa.

Positive Controls: TROP-2 (h): 293T Lysate: sc-176454.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



TROP-2 (H-85): sc-98472. Western blot analysis of TROP-2 expression in non-transfected: sc-117752 (**A**) and human TROP-2 transfected: sc-176454 (**B**) 293T whole cell lysates.

RESEARCH USE

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

MONOS Satisfaction Guaranteed

Try **TROP-2 (B-9): sc-376746** or **TROP-2 (F-5): sc-376181**, our highly recommended monoclonal alternatives to TROP-2 (H-85). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **TROP-2 (B-9): sc-376746**.