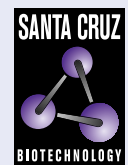


TROP-2 (B-9): sc-376746



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 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 (GDL) also referred to as lattice corneal dystrophy type III, an autosomal recessive disorder that causes severe visual impairment.

CHROMOSOMAL LOCATION

Genetic locus: TACSTD2 (human) mapping to 1p32.1.

SOURCE

TROP-2 (B-9) is a mouse monoclonal antibody raised against amino acids 141-225 mapping within an internal region of TROP-2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TROP-2 (B-9) is available conjugated to agarose (sc-376746 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376746 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376746 PE), fluorescein (sc-376746 FITC), Alexa Fluor® 488 (sc-376746 AF488), Alexa Fluor® 546 (sc-376746 AF546), Alexa Fluor® 594 (sc-376746 AF594) or Alexa Fluor® 647 (sc-376746 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376746 AF680) or Alexa Fluor® 790 (sc-376746 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

TROP-2 (B-9) is recommended for detection of TROP-2 of 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).

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

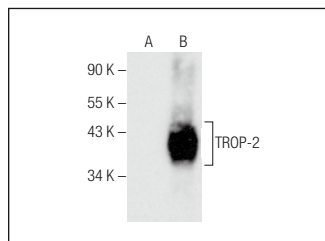
Molecular Weight of TROP-2: 40 kDa.

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

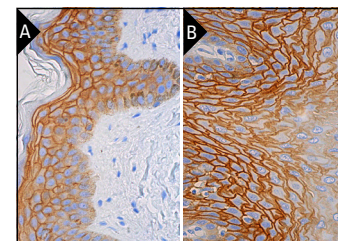
STORAGE

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

DATA



TROP-2 (B-9): sc-376746. 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.



TROP-2 (B-9) HRP: sc-376746 HRP. Direct immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing membrane and cytoplasmic staining of keratinocytes and cytoplasmic staining of melanocytes (A), and of human esophagus tissue showing membrane and cytoplasmic staining of squamous epithelial cells (B). Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214.

SELECT PRODUCT CITATIONS

- Wu, B., et al. 2017. Overexpression of TROP-2 promotes proliferation and invasion of ovarian cancer cells. *Exp. Ther. Med.* 14: 1947-1952.
- Sadullahoglu, C., et al. 2019. The diagnostic significance of trophoblast cell-surface antigen-2 expression in benign and malignant thyroid lesions. *Indian J. Pathol. Microbiol.* 62: 206-210.
- Akarken, I., 2021. Could TROP-2 overexpression indicate tumor aggressiveness among prostatic adenocarcinomas? *Ann. Diagn. Pathol.* 50: 151680.
- Licini, C., et al. 2021. Pre-eclampsia predictive ability of maternal miR-125b: a clinical and experimental study. *Transl. Res.* 228: 13-27.
- Kushiya, S., et al. 2021. Clinicopathologic significance of TROP2 and phospho-TROP2 in gastric cancer. *Mol. Clin. Oncol.* 14: 105.
- Aslan, M., et al. 2021. Quantifying the invasion and migration ability of cancer cells with a 3D Matrigel drop invasion assay. *Biol. Methods Protoc.* 6: bpab014.
- Bamodu, O.A., et al. 2021. Genetic suppressor element 1 (GSE1) promotes the oncogenic and recurrent phenotypes of castration-resistant prostate cancer by targeting tumor-associated calcium signal transducer 2 (TACSTD2). *Cancers* 13: 3959.
- Aslan, M., et al. 2021. Oncogene-mediated metabolic gene signature predicts breast cancer outcome. *NPJ Breast Cancer* 7: 141.
- Liatsou, E., et al. 2023. The impact of trophoblast cell-surface antigen 2 expression on the survival of patients with gastrointestinal tumors: a systematic review. *J. Pers. Med.* 13: 1445.

RESEARCH USE

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