TRAG-3 (E-12): sc-79289



The Power to Question

BACKGROUND

TRAG-3, also known as CSAG2 (CSAG family, member 2), is a 127 amino acid protein that is expressed at low levels in kidney tissue and is also present in various carcinomas, including melanomas and prostate cancer. Existing as multiple alternatively spliced isoforms, TRAG-3 functions as a drug-resistance related protein that is thought to be linked to malignancy and is associated with a resistance to chemotherapy, indicating a strong role in tumor development and survival. The gene encoding TRAG-3 maps to human chromosome X, which contains nearly 153 million base pairs and houses over 1,000 genes. In conjunction with chromosome Y, chromosome X is responsible for sex determination. There are a number of conditions related to an abnormal number and combination of sex chromosomes, some of which include Turner's syndrome, color blindness, hemophilia and Duchenne muscular dystrophy.

REFERENCES

- Duan, Z., Feller, A.J., Toh, H.C., Makastorsis, T. and Seiden, M.V. 1999. TRAG-3, a novel gene, isolated from a taxol-resistant ovarian carcinoma cell line. Gene 229: 75-81.
- Feller, A.J., Duan, Z., Penson, R., Toh, H.C. and Seiden, M.V. 2000. TRAG-3, a novel cancer/testis antigen, is overexpressed in the majority of melanoma cell lines and malignant melanoma. Anticancer Res. 20: 4147-4151.
- Lin, C., Mak, S., Meitner, P.A., Wolf, J.M., Bluman, E.M., Block, J.A. and Terek, R.M. 2002. Cancer/testis antigen CSAGE is concurrently expressed with MAGE in chondrosarcoma. Gene 285: 269-278.
- 4. Yao, X., Hu, J.F., Li, T., Yang, Y., Sun, Z., Ulaner, G.A., Vu, T.H. and Hoffman, A.R. 2004. Epigenetic regulation of the taxol resistance-associated gene TRAG-3 in human tumors. Cancer Genet. Cytogenet. 151: 1-13.
- Janjic, B., Andrade, P., Wang, X.F., Fourcade, J., Almunia, C., Kudela, P., Brufsky, A., Jacobs, S., Friedland, D., Stoller, R., Gillet, D., Herberman, R.B., Kirkwood, J.M., Maillere, B. and Zarour, H.M. 2006. Spontaneous CD4+ T cell responses against TRAG-3 in patients with melanoma and breast cancers. J. Immunol. 177: 2717-2727.
- Ohta, M., Tanaka, F., Sadanaga, N., Yamaguchi, H., Inoue, H. and Mori, M. 2006. Expression of the TRAG-3 gene in human esophageal cancer: the frequent synchronous expression of MAGE-3 gene. Oncol. Rep. 15: 1529-1532.
- 7. Hansen, M.A., Nielsen, J.E., Retelska, D., Larsen, N. and Leffers, H. 2008. A shared promoter region suggests a common ancestor for the human VCX/Y, SPANX, and CSAG gene families and the murine CYPT family. Mol. Reprod. Dev. 75: 219-229.

CHROMOSOMAL LOCATION

Genetic locus: CSAG2 (human) mapping to Xq28.

STORAGE

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

SOURCE

TRAG-3 (E-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TRAG-3 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-79289 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TRAG-3 (E-12) is recommended for detection of TRAG-3 of 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 TRAG-3 siRNA (h): sc-106632, TRAG-3 shRNA Plasmid (h): sc-106632-SH and TRAG-3 shRNA (h) Lentiviral Particles: sc-106632-V.

Molecular Weight of TRAG-3: 17 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.

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