



CTS9 (T-13): sc-67614

BACKGROUND

CTS9, also known as DEC1 (deleted in esophageal cancer 1), is a 70 amino acid protein that is encoded by a candidate tumor suppressor gene (TSG) located on chromosome 9. Found in a region commonly deleted in esophageal squamous cell carcinoma (ESCC), CTS9 is able to suppress cancer cell growth *in vitro*. CTS9 is widely expressed with highest expression in the testis and prostate. Its reduced or absent expression in ESCC suggests a possible role in normal cell growth, development or signaling. CTS9 has a high loss of heterozygosity (LOH) frequency that is common in squamous cell carcinomas of the bladder, head, neck and esophagus.

REFERENCES

- Miura, K., Suzuki, K., Tokino, T., Isomura, M., Inazawa, J., Matsuno, S. and Nakamura, Y. 1996. Detailed deletion mapping in squamous cell carcinomas of the esophagus narrows a region containing a putative tumor suppressor gene to about 200 kilobases on distal chromosome 9q. *Cancer Res.* 56: 1629-1634.
- Nishiwaki, T., Daigo, Y., Kawasoe, T. and Nakamura, Y. 2000. Isolation and mutational analysis of a novel human cDNA, DEC1 (deleted in esophageal cancer 1), derived from the tumor suppressor locus in 9q32. *Genes Chromosomes Cancer* 27: 169-176.
- Yang, L., Leung, A.C., Ko, J.M., Lo, P.H., Tang, J.C., Srivastava, G., Oshimura, M., Stanbridge, E.J., Daigo, Y., Nakamura, Y., Tang, C.M., Lau, K.W., Law, S. and Lung, M.L. 2005. Tumor suppressive role of a 2.4 Mb 9q33-q.critical region and DEC1 in esophageal squamous cell carcinoma. *Oncogene* 24: 697-705.
- Preusser, M., Birner, P., Ambros, I.M., Ambros, P.F., Budka, H., Harris, A.L. and Hainfellner, J.A. 2005. DEC1 expression in 1p-aberrant oligodendroglial neoplasms. *Histol. Histopathol.* 20: 1173-1177.
- Li, Y., Xie, M., Yang, J., Yang, D., Deng, R., Wan, Y. and Yan, B. 2006. The expression of antiapoptotic protein survivin is transcriptionally upregulated by DEC1 primarily through multiple Sp1 binding sites in the proximal promoter. *Oncogene* 25: 3296-3306.
- Leung, A.C., Wong, V.C., Yang, L.C., Chan, P.L., Daigo, Y., Nakamura, Y., Qi, R.Z., Miller, L.D., Liu, E.T., Wang, L.D., Li, J.L., Law, S., Tsao, S.W. and Lung, M.L. 2007. Frequent decreased expression of candidate tumor suppressor gene, DEC1, and its anchorage-independent growth properties and impact on global gene expression in esophageal carcinoma. *Int. J. Cancer* 122: 587-594.
- Online Mendelian Inheritance in Man, OMIM™. 2007. Johns Hopkins University, Baltimore, MD. MIM Number: 604767. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

CHROMOSOMAL LOCATION

Genetic locus: DEC1 (human) mapping to 9q32.

SOURCE

CTS9 (T-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of CTS9 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-67614 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-67614 X, 200 µg/0.1 ml.

APPLICATIONS

CTS9 (T-13) is recommended for detection of CTS9 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 CTS9 siRNA (h): sc-62204.

CTS9 (T-13) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of CTS9: 8 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.