

CT45 (N-20): sc-138226

BACKGROUND

CT45 (cancer/testis antigen family 45, member A4/A6), also known as CT45-6, CT45.6, CT45A4 or CT45A6, is a 189 amino acid protein expressed in testis and in various cancer cell lines. The CT45 family comprises six highly similar (>98% cDNA identity) genes that are clustered in tandem within a 125-kb region on Xq26.3. It is suggested that CT45 is significantly phosphorylated and down-regulated during mitosis. Localized to the nucleus, CT45 may be involved in the malignancy of classical Hodgkin lymphoma in patients and is considered to be a potentially valuable cancer target. CT45 is encoded by a gene located on human chromosome X, which consists of about 153 million base pairs and nearly 1,000 genes. Color blindness, hemophilia and Duchenne muscular dystrophy are well known X chromosome-linked conditions which affect males more frequently, as males carry a single X chromosome.

REFERENCES

- Gianfrancesco, F., et al. 2001. Differential divergence of three human pseudoautosomal genes and their mouse homologs: implications for sex chromosome evolution. *Genome Res.* 11: 2095-2100.
- Bernardino-Sgheri, J., et al. 2002. Overall DNA methylation and chromatin structure of normal and abnormal X chromosomes. *Cytogenet. Genome Res.* 99: 85-91.
- Chen, Y.T., et al. 2005. Identification of cancer/testis-antigen genes by massively parallel signature sequencing. *Proc. Natl. Acad. Sci. USA* 102: 7940-7945.
- Heidebrecht, H.J., et al. 2006. Characterization and expression of CT45 in Hodgkin's lymphoma. *Clin. Cancer Res.* 12: 4804-4811.
- Andrade, V.C., et al. 2009. Frequency and prognostic relevance of cancer testis antigen 45 expression in multiple myeloma. *Exp. Hematol.* 37: 446-449.
- Chen, Y.T., et al. 2009. Cancer/testis antigen CT45: analysis of mRNA and protein expression in human cancer. *Int. J. Cancer* 124: 2893-2898.
- Online Mendelian Inheritance in Man, OMIM[™]. 2009. Johns Hopkins University, Baltimore, MD. MIM Number: 300797. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

SOURCE

CT45 (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CT45-4 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-138226 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

CT45 (N-20) is recommended for detection of CT45-1, CT45-2, CT45-3, CT45-4, CT45-5 and CT45-6 of human 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).

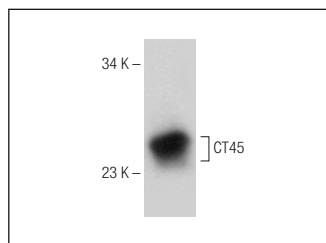
Molecular Weight of CT45: 25/22 kDa.

Positive Controls: T-47D cell lysate: sc-2293, K-562 whole cell lysate: sc-2203 or L-428 whole cell lysate.

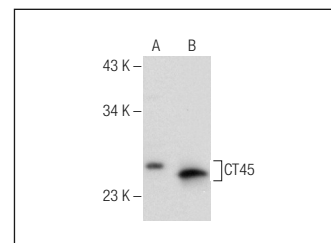
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



CT45 (N-20): sc-138226. Western blot analysis of CT45 expression in L-428 whole cell lysate.



CT45 (N-20): sc-138226. Western blot analysis of CT45 expression in T-47D (A) and K-562 (B) whole cell lysates.

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.