

CML66 (T-20): sc-50562

BACKGROUND

The NUDCD1 gene encodes the 583 amino acid CML66 protein which demonstrates expression in a variety of solid tumor cell lines and leukemias. Expression of CML66 in normal tissues is restricted to testis and heart. The CML66 antibody is found in sera of 18-38% of patients with lung cancer, melanoma or prostate cancer. These findings indicate that CML66 may be immunogenic in a wide variety of malignancies and may be a target for antigen-specific immunotherapy. A short isoform of CML66, designated CML66-S, is a product of alternative splicing. CML66-S has the same C-terminus as full-length CML66 (also designated CML66-L), but has a unique N-terminus. CML66-S shows predominant expression in testis, and is also expressed in very low levels in tumor cells, while CML66 is expressed in tumor cells and testis.

REFERENCES

1. Yang, X.F., et al. 2001. CML66, a broadly immunogenic tumor antigen, elicits a humoral immune response associated with remission of chronic myelogenous leukemia. *Proc. Natl. Acad. Sci. USA* 98: 7492-7497.
2. You, Q., et al. 2004. Cloning, prokaryotic expression of CML66 and preparation of its polyclonal antibody. *Xi Bao Yu Fen Zi Mian Yi Xue Za Zhi* 19: 582-584.
3. Yan, Y., et al. 2004. A novel mechanism of alternative promoter and splicing regulates the epitope generation of tumor antigen CML66-L. *J. Immunol.* 172: 651-660.
4. Wu, C.J., et al. 2005. Graft-versus-leukemia target antigens in chronic myelogenous leukemia are expressed on myeloid progenitor cells. *Clin. Cancer Res.* 11: 4504-4511.

CHROMOSOMAL LOCATION

Genetic locus: NUDCD1 (human) mapping to 8q23.1; Nudcd1 (mouse) mapping to 15 B3.2.

SOURCE

CML66 (T-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CML66 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-50562 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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

CML66 (T-20) is recommended for detection of CML66 of mouse, rat and 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).

CML66 (T-20) is also recommended for detection of CML66 in additional species, including canine and porcine.

Suitable for use as control antibody for CML66 siRNA (h): sc-60417, CML66 siRNA (m): sc-60418, CML66 shRNA Plasmid (h): sc-60417-SH, CML66 shRNA Plasmid (m): sc-60418-SH, CML66 shRNA (h) Lentiviral Particles: sc-60417-V and CML66 shRNA (m) Lentiviral Particles: sc-60418-V.

Molecular Weight of CML66: 66 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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.

RESEARCH USE

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