

# CML66 (H-300): sc-99225

## 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. 2003. 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 (H-300) is a rabbit polyclonal antibody raised against amino acids 284-583 mapping at the C-terminus 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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.

## APPLICATIONS

CML66 (H-300) 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 (H-300) is also recommended for detection of CML66 in additional species, including canine and bovine.

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.

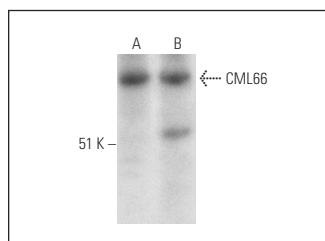
Molecular Weight of CML66: 66 kDa.

Positive Controls: rat testis extract: sc-2400 or mouse testis extract: sc-2405.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



CML66 (H-300): sc-99225. Western blot analysis of CML66 expression in mouse testis (A) and rat testis (B) tissue extracts.

## RESEARCH USE

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