

CML66 (C-4): sc-271650

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: 6516-6560.

CHROMOSOMAL LOCATION

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

SOURCE

CML66 (C-4) is a mouse monoclonal antibody raised against amino acids 284-583 mapping at the C-terminus of CML66 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

CML66 (C-4) is available conjugated to agarose (sc-271650 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-271650 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271650 PE), fluorescein (sc-271650 FITC), Alexa Fluor® 488 (sc-271650 AF488), Alexa Fluor® 546 (sc-271650 AF546), Alexa Fluor® 594 (sc-271650 AF594) or Alexa Fluor® 647 (sc-271650 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271650 AF680) or Alexa Fluor® 790 (sc-271650 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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STORAGE

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

APPLICATIONS

CML66 (C-4) is recommended for detection of CML66 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

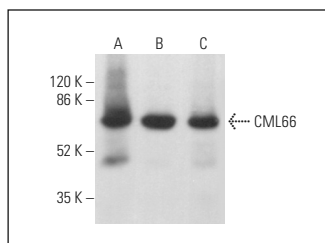
Molecular Weight of CML66: 66 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, NTERA-2 cl.D1 whole cell lysate: sc-364181 or MIA PaCa-2 cell lysate: sc-2285.

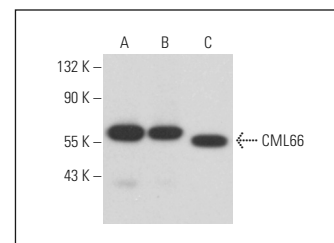
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



CML66 (C-4): sc-271650. Western blot analysis of CML66 expression in HeLa (A), MIA PaCa-2 (B) and NTERA-2 cl.D1 (C) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



CML66 (C-4): sc-271650. Western blot analysis of CML66 expression in K-562 (A), A-431 (B) and Neuro-2A (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Dong, Z. and White, T.J. 2004. Calcium-lead fluoro-vanadinite apatites. I. disequilibrium structures. *Acta Crystallogr. B* 60: 138-145.
2. Song, F., et al. 2019. OVA66 promotes tumour angiogenesis and progression through enhancing autocrine VEGF-VEGFR2 signalling. *EBioMedicine* 41: 156-166.

RESEARCH USE

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