cyclin M4 (D-13): sc-68289



The Power to Question

BACKGROUND

Cyclin M4 (also designated metal transporter CNNM4, ancient conserved domain-containing protein 4) is a 775 amino acid protein encoded by the human gene CNNM4. Cyclin M4 belongs to the ACDP family and contains one CBS domain. Cyclin M4 is a probable metal transporter. The interaction of cyclin M4 with the metal ion chaperone COX11 also suggests that it may play a role in sensory neuron functions. Cyclin M4 is a multi-pass membrane protein that is widely expressed with high expression found in heart. The name of the protein is derived from the weak sequence similarity it shares with the cyclin family, however, cyclin M4 has no cyclin-like function *in vivo*.

REFERENCES

- Rolfs, A. and Hediger, M.A. 1999. Metal ion transporters in mammals: structure, function and pathological implications. J. Physiol. 518: 1-12.
- Nelson, N. 1999. Metal ion transporters and homeostasis. EMBO J. 18: 4361-4371.
- Eide, D.J. 2000. Metal ion transport in eukaryotic microorganisms: insights from Saccharomyces cerevisiae. Adv. Microb. Physiol. 43: 1-38.
- Wang, C.Y., Shi, J.D., Yang, P., Kumar, P.G., Li, Q.Z., Run, Q.G., Su, Y.C., Scott, H.S., Kao, K.J. and She, J.X. 2003. Molecular cloning and characterization of a novel gene family of four ancient conserved domain proteins (ACDP). Gene 306: 37-44.
- Lakatos, B., Szentmihályi, K., Vinkler, P., Balla, J. and Balla, G. 2004. The role of essential metal ions in the human organism and their oral supplementation to the human body in deficiency states. Orv. Hetil. 145: 1315-1319.
- Guo, D., Ling, J., Wang, M.H., She, J.X., Gu, J. and Wang, C.Y. 2005. Physical interaction and functional coupling between ACDP4 and the intracellular ion chaperone COX11, an implication of the role of ACDP4 in essential metal ion transport and homeostasis. Mol. Pain 1: 15.

CHROMOSOMAL LOCATION

Genetic locus: CNNM4 (human) mapping to 2q11.2; Cnnm4 (mouse) mapping to 1 B.

SOURCE

cyclin M4 (D-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of cyclin M4 of human origin.

PRODUCT

Each vial contains 200 μg lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-68289 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4° C, **D0 NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

cyclin M4 (D-13) is recommended for detection of cyclin M4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 cyclin M4 siRNA (h): sc-77065, cyclin M4 siRNA (m): sc-77066, cyclin M4 shRNA Plasmid (h): sc-77065-SH, cyclin M4 shRNA Plasmid (m): sc-77066-SH, cyclin M4 shRNA (h) Lentiviral Particles: sc-77065-V and cyclin M4 shRNA (m) Lentiviral Particles: sc-77066-V.

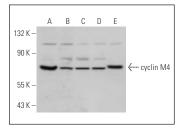
Molecular Weight of cyclin M4: 87 kDa.

Positive Controls: U-87 MG cell lysate: sc-2411, Jurkat whole cell lysate: sc-2204 or 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.

DATA



cyclin M4 (D-13): sc-68289. Western blot analysis of cyclin M4 expression in CCRF-CEM (**A**), NCI-H460 (**B**), U-87 MG (**C**), HeLa (**D**) and Jurkat (**E**) 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.

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3801 Fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com