

COMMD1 (H-140): sc-98286

BACKGROUND

Copper is an essential micronutrient used as a co-factor for several essential enzymes in all living organisms. Due to the high toxicity of copper, its metabolism is tightly regulated and defects in this regulation can cause Menkes (deficiency) or Wilson (accumulation) disease in various tissue. COMMD1 (copper metabolism MURR1 domain-containing protein 1), also known as MURR1, is a 190 amino acid protein responsible for inhibition of TNF-induced NF κ B p50 and has a suggested role in facilitation of biliary copper excretion within hepatocytes. COMMD1 localizes to both the nucleus and cytoplasm within the cell. Highest expression is found in liver tissue, with lower expressions in lung, heart, kidney and brain tissue. COMMD1 interacts directly with COMMD6 and ATP7B, and indirectly with I κ B- β and COMMD7. All ten members of the COMMD family (COMMD1-10) contain a conserved COMM domain which provides an interface for protein-protein interactions.

REFERENCES

1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 607238. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
2. Klomp, A.E., van de Sluis, B., Klomp, L.W. and Wijmenga, C. 2003. The ubiquitously expressed MURR1 protein is absent in canine copper toxicosis. *J. Hepatol.* 39: 703-709.
3. Coronado, V.A., Bonneville, J.A., Nazer, H., Roberts, E.A. and Cox, D.W. 2005. COMMD1 (MURR1) as a candidate in patients with copper storage disease of undefined etiology. *Clin. Genet.* 68: 548-551.
4. Burstein, E., Hoberg, J.E., Wilkinson, A.S., Rumble, J.M., Csomos, R.A., Komarck, C.M., Maine, G.N., Wilkinson, J.C., Mayo, M.W. and Duckett, C.S. 2005. COMMD proteins, a novel family of structural and functional homologs of MURR1. *J. Biol. Chem.* 280: 22222-22232.
5. de Bie, P., van de Sluis, B., Klomp, L. and Wijmenga, C. 2005. The many faces of the copper metabolism protein MURR1/COMMD1. *J. Hered.* 96: 803-811.
6. de Bie, P., van de Sluis, B., Burstein, E., van de Berghe, P.V., Muller, P., Berger, R., Gitlin, J.D., Wijmenga, C. and Klomp, L.W. 2007. Distinct Wilson's disease mutations in ATP7B are associated with enhanced binding to COMMD1 and reduced stability of ATP7B. *Gastroenterology* 133: 1316-1326.

CHROMOSOMAL LOCATION

Genetic locus: COMMD1 (human) mapping to 2p15; Commd1 (mouse) mapping to 11 A3.2.

SOURCE

COMMD1 (H-140) is a rabbit polyclonal antibody raised against amino acids 41-180 mapping near the C-terminus of COMMD1 of human origin.

RESEARCH USE

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

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-98286 X, 200 μ g/0.1 ml.

APPLICATIONS

COMMD1 (H-140) is recommended for detection of COMMD1 of mouse 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).

COMMD1 (H-140) is also recommended for detection of COMMD1 in additional species, including equine, canine, bovine and porcine.

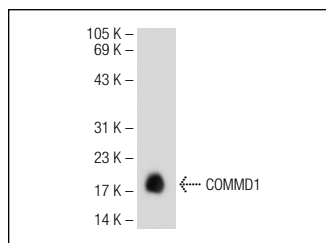
Suitable for use as control antibody for COMMD1 siRNA (h): sc-94689, COMMD1 siRNA (m): sc-142482, COMMD1 shRNA Plasmid (h): sc-94689-SH, COMMD1 shRNA Plasmid (m): sc-142482-SH, COMMD1 shRNA (h) Lentiviral Particles: sc-94689-V and COMMD1 shRNA (m) Lentiviral Particles: sc-142482-V.

COMMD1 (H-140) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of COMMD1: 21 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or mouse liver extract: sc-2256.

DATA



COMMD1 (H-140): sc-98286. Western blot analysis of COMMD1 expression in mouse liver tissue extract.

STORAGE

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

MONOS
Satisfaction
Guaranteed

Try **COMMD1 (B-4): sc-166248**, our highly recommended monoclonal alternative to COMMD1 (H-140).