

COMMD8 (Y-15): sc-104160

BACKGROUND

COMMD family members are a group of evolutionary conserved proteins that share a common COMM domain at the extreme C-terminus, which provides an interface for protein-protein interactions. Of the ten family members, the role of COMMD1, also known as MURR1, is best characterized, functioning to inhibit TNF-induced NF κ B p50 and to facilitate biliary copper excretion within hepatocytes. Most, if not all, COMMD proteins have been found to play a role in the regulation of NF κ B and, despite their similarities, seem to function in unique and non-redundant pathways. COMMD proteins may also play a role in the function of epithelial sodium channels, cell proliferation, copper homeostasis and in the regulation of the ubiquitin pathway. COMM domain-containing protein 8 is a 183 amino acid protein that is widely expressed with highest expression in thyroid.

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.
7. Narindrasorasak, S., Kulkarni, P., Deschamps, P., She, Y.M. and Sarkar, B. 2007. Characterization and copper binding properties of human COMMD1 (MURR1). *Biochemistry* 46: 3116-3128.

CHROMOSOMAL LOCATION

Genetic locus: *Commd8* (mouse) mapping to 5 C3.2.

SOURCE

COMMD8 (Y-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of COMMD8 of mouse 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.

Blocking peptide available for competition studies, sc-104160 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

COMMD8 (Y-15) is recommended for detection of COMMD8 of mouse and rat 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); non cross-reactive with other COMMD family members.

Suitable for use as control antibody for COMMD8 siRNA (m): sc-105231, COMMD8 shRNA Plasmid (m): sc-105231-SH and COMMD8 shRNA (m) Lentiviral Particles: sc-105231-V.

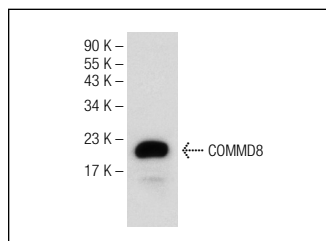
Molecular Weight of COMMD8: 21 kDa.

Positive Controls: COMMD8 (m): 293T Lysate : sc-119380 or mouse thyroid extract: sc-2407.

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



COMMD8 (Y-15): sc-104160. Western blot analysis of COMMD8 expression in mouse thyroid tissue extract.

STORAGE

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