

CD92 (K-17): sc-68263

BACKGROUND

CD92, also known as SLC44A1 (solute carrier family 44, member 1), CDw92 or CTL1 (choline transporter-like protein 1), is a 657 amino acid multi-pass membrane protein that belongs to the choline transporter-like family of solute carrier proteins. Expressed in cells that are associated with the hematopoietic system, CD92 functions as a choline transporter that may be involved in myelin production, as well as in membrane synthesis. Human CD92 shares 96% sequence homology with its mouse counterpart, suggesting a conserved role between species. Three isoforms of CD92 exist due to alternative splicing events. The gene encoding CD92 maps to human chromosome 9, which houses over 900 genes and comprises nearly 4% of the human genome. Hereditary hemorrhagic telangiectasia, which is characterized by harmful vascular defects, and *Familial dysautonomia*, are both associated with chromosome 9. Notably, chromosome 9 encompasses the largest interferon family gene cluster.

REFERENCES

- O'Regan, S., Traiffort, E., Ruat, M., Cha, N., Compaore, D. and Meunier, F.M. 2000. An electric lobe suppressor for a yeast choline transport mutation belongs to a new family of transporter-like proteins. *Proc. Natl. Acad. Sci. USA* 97: 1835-1840.
- Wille, S., Szekeres, A., Majdic, O., Prager, E., Staffler, G., Stöckl, J., Kunthalert, D., Prieschl, E.E., Baumruker, T., Burtscher, H., Zlabinger, G.J., Knapp, W. and Stockinger, H. 2001. Characterization of CDw92 as a member of the choline transporter-like protein family regulated specifically on dendritic cells. *J. Immunol.* 167: 5795-5804.
- Traiffort, E., Ruat, M., O'Regan, S. and Meunier, F.M. 2005. Molecular characterization of the family of choline transporter-like proteins and their splice variants. *J. Neurochem.* 92: 1116-1125.
- Lecomte, M.J., De Gois, S., Guerci, A., Ravassard, P., Faucon Biguet, N., Mallet, J. and Berrard, S. 2005. Differential expression and regulation of the high-affinity choline transporter CHT1 and choline acetyltransferase in neurons of superior cervical ganglia. *Mol. Cell. Neurosci.* 28: 303-313.
- Online Mendelian Inheritance in Man, OMIM[™]. 2005. Johns Hopkins University, Baltimore, MD. MIM Number: 606105. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Fullerton, M.D., Wagner, L., Yuan, Z. and Bakovic, M. 2006. Impaired trafficking of choline transporter-like protein-1 at plasma membrane and inhibition of choline transport in THP-1 monocyte-derived macrophages. *Am. J. Physiol., Cell Physiol.* 290: C1230-C1238.
- Yuan, Z., Tie, A., Tarnopolsky, M. and Bakovic, M. 2006. Genomic organization, promoter activity, and expression of the human choline transporter-like protein 1. *Physiol. Genomics* 26: 76-90.

CHROMOSOMAL LOCATION

Genetic locus: SLC44A1 (human) mapping to 9q31.1; Slc44a1 (mouse) mapping to 4 B2.

SOURCE

CD92 (K-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CD92 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.

Blocking peptide available for competition studies, sc-68263 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CD92 (K-17) is recommended for detection of CD92 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

CD92 (K-17) is also recommended for detection of CD92 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for CD92 siRNA (h): sc-62086, CD92 siRNA (m): sc-62087, CD92 shRNA Plasmid (h): sc-62086-SH, CD92 shRNA Plasmid (m): sc-62087-SH, CD92 shRNA (h) Lentiviral Particles: sc-62086-V and CD92 shRNA (m) Lentiviral Particles: sc-62087-V.

Molecular Weight of CD92: 50 kDa.

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) 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.

STORAGE

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

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.