

Transcobalamin II (M-120): sc-67118

BACKGROUND

Transcobalamin I (TCI) and Transcobalamin II (TCII) are secreted proteins belonging to the eukaryotic cobalamin transport proteins family and also to the vitamin B12-binding protein family. The genes encoding these proteins map to chromosome 11q11-q12 and 22q12.2, respectively. Transcobalamin I is a constituent of secondary granules in neutrophils, while Transcobalamin II binds cobalamin and mediates its transport into cells. These plasma proteins are expressed in various tissues and secretions.

REFERENCES

1. Kalra, S., Li, N., Yammani, R.R., Seetharam, S. and Seetharam, B. 2004. Cobalamin (vitamin B12) binding, phylogeny and synteny of human transcobalamin. *Arch. Biochem. Biophys.* 431: 189-196.
2. Cheeramakara, C., Thanomsak, W., Songmeang, K., Nontprasert, A., Sanghirun, C., Suthisai, N. and Areekul, S. 2005. Elevation of serum transcobalamin II in patients with scrub typhus. *Southeast Asian J. Trop. Med. Public Health* 36: 113-117.
3. Chen, X., Remacha, A.F., Sardà, M.P. and Carmel, R. 2005. Influence of cobalamin deficiency compared with that of cobalamin absorption on serum holo-transcobalamin II. *Am. J. Clin. Nutr.* 81: 110-114.
4. Fedosov, S.N., Orning, L., Løvli, T., Quadros, E.V., Thompson, K., Berglund, L. and Petersen, T.E. 2005. Mapping the functional domains of human transcobalamin using monoclonal antibodies. *FEBS J.* 272: 3887-3898.
5. Swanson, D.A., Pangilinan, F., Mills, J.L., Kirke, P.N., Conley, M., Weiler, A., Frey, T., Parle-McDermott, A., O'Leary, V.B., Seltzer, R.R., Moynihan, K.A., Molloy, A.M., Burke, H., Scott, J.M. and Brody, L.C. 2005. Evaluation of transcobalamin II polymorphisms as neural tube defect risk factors in an Irish population. *Birth Defects Res. A Clin. Mol. Teratol.* 73: 239-244.

CHROMOSOMAL LOCATION

Genetic locus: Tcn2 (mouse) mapping to 11 A1.

SOURCE

Transcobalamin II (M-120) is a rabbit polyclonal antibody raised against amino acids 311-430 mapping at the C-terminus of Transcobalamin II of mouse origin.

PRODUCT

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

STORAGE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

APPLICATIONS

Transcobalamin II (M-120) is recommended for detection of precursor and mature Transcobalamin II of mouse and, to a lesser extent, rat origin by Western Blotting (starting dilution 1:200, 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 Transcobalamin II siRNA (m): sc-45321, Transcobalamin II shRNA Plasmid (m): sc-45321-SH and Transcobalamin II shRNA (m) Lentiviral Particles: sc-45321-V.

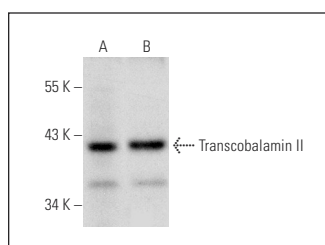
Molecular Weight of Transcobalamin II: 48 kDa.

Positive Controls: mouse liver extract: sc-2256 or mouse pancreas extract: sc-364244.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Transcobalamin II (M-120): sc-67118. Western blot analysis of Transcobalamin II expression in mouse liver (A) and mouse pancreas (B) tissue extracts.

RESEARCH USE

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