SANTA CRUZ BIOTECHNOLOGY, INC.

Transcobalamin II (H-260): sc-67119



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 11g11-g12 and 22g12.2, 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., et al. 2004. Cobalamin (vitamin B12) binding, phylogeny, and synteny of human transcobalamin. Arch. Biochem. Biophys. 431: 189-196.
- 2. Cheeramakara, C., et al. 2005. Elevation of serum transcobalamin II in patients with scrub typhus. Southeast. Asian. J. Trop. Med. Public. Health. 36: 113-117.
- 3. Chen, X., et al. 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., et al. 2005. Mapping the functional domains of human transcobalamin using monoclonal antibodies. FEBS J. 272: 3887-3898.
- 5. Swanson, D.A., et al. 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.
- 6. Martinelli, M., et al. 2006. Study of four genes belonging to the folate pathway: transcobalamin 2 is involved in the onset of non-syndromic cleft lip with or without cleft palate. Hum. Mutat. 27: 294.
- 7. Böttiger, A.K. and Nilsson, T.K. 2007. Pyrosequencing assay for genotyping of the Transcobalamin II 776C>G polymorphism. Scand. J. Clin. Lab. Invest. 67: 247-251.

CHROMOSOMAL LOCATION

Genetic locus: TCN2 (human) mapping to 22q12.

SOURCE

Transcobalamin II (H-260) is a rabbit polyclonal antibody raised against amino acids 168-427 mapping at the C-terminus of Transcobalamin II 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.

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.

APPLICATIONS

Transcobalamin II (H-260) is recommended for detection of precursor and mature Transcobalamin II of human 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 (h): sc-45320, Transcobalamin II shRNA Plasmid (h): sc-45320-SH and Transcobalamin II shRNA (h) Lentiviral Particles: sc-45320-V.

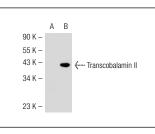
Molecular Weight of Transcobalamin II: 47 kDa.

Positive Controls: Transcobalamin II (h): 293 Lysate: sc-112334.

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 antirabbit 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 (H-260): sc-67119. Western blot analysis of Transcobalamin II expression in non-transfected sc-110760 (A) and human Transcobalamin II transfected sc-112334 (B) 293 whole cell lysates.

PROTOCOLS

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

Try Transcobalamin II (A-5): sc-137017, our MONOS highly recommended monoclonal alternative to Satisfation Transcobalamin II (H-260) Guaranteed