SANTA CRUZ BIOTECHNOLOGY, INC.

Transcobalamin II (P-12): sc-34346

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., et al. 2004. Cobalamin (vitamin B12) binding, phylogeny and synteny of human Transcobalamin. Arch. Biochem. Biophys. 431: 189-96.
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.

CHROMOSOMAL LOCATION

Genetic locus: TCN2 (human) mapping to 22q12.2; Tcn2 (mouse) mapping to 11 A1.

SOURCE

Transcobalamin II (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Transcobalamin II precursor 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.

Blocking peptide available for competition studies, sc-34346 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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 (P-12) is recommended for detection of precursor and mature Transcobalamin II 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).

Suitable for use as control antibody for Transcobalamin II siRNA (h): sc-45320, Transcobalamin II siRNA (m): sc-45321, Transcobalamin II shRNA Plasmid (h): sc-45320-SH, Transcobalamin II shRNA Plasmid (m): sc-45321-SH, Transcobalamin II shRNA (h) Lentiviral Particles: sc-45320-V and Transcobalamin II shRNA (m) Lentiviral Particles: sc-45321-V.

Molecular Weight of Transcobalamin II: 48 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.

RESEARCH USE

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