SANTA CRUZ BIOTECHNOLOGY, INC.

cubilin (M-300): sc-50319



BACKGROUND

Cubilin is an endocytic receptor that lacks a classical transmembrane region. It is a multidomain receptor that contains an amino terminal 110 residue segment followed by 8 epidermal growth factor (EGF)-like repeats and a contiguous stretch of 27 CUB domains. The gene encoding human cubulin maps to chromosome 10 and is predominantly expressed as a 460 kDa protein in intestine, kidney and yolk sac. It also is expressed as a 230 kDa form in intestinal membranes. Cubilin co-localizes with and binds to Megalin, a 600 kDa member of the LDL receptor family that is required for the internalization of cubulin-bound ligands, such as vitamin B12, apolipoprotein A1 and Albumin. Megalin specifically binds to cubilin in the amino terminal region that contains the EGF-like repeats and CUB domains 1 and 2. Mutations in the cubulin gene are thought to cause megaloblastic anemia 1 (MGA1), an autosomal recessive disorder also known as Imerslund-Grasbeck's disease, which causes intestinal malabsorption of vitamin B12.

REFERENCES

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- Kozyraki, R., et al. 2001. Cubulin, a multifunctional epithelial receptor: an overview. J. Mol. Med. 79: 161-167.
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CHROMOSOMAL LOCATION

Genetic locus: CUBN (human) mapping to 10p12.31; Cubn (mouse) mapping to 2 A1.

SOURCE

cubilin (M-300) is a rabbit polyclonal antibody raised against amino acids 3324-3623 mapping at the C-terminus of cubilin of mouse origin.

RESEARCH USE

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

PRODUCT

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

APPLICATIONS

cubilin (M-300) is recommended for detection of cubilin of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation $[1-2 \ \mu g \ per 100-500 \ \mu g \ of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).$

Suitable for use as control antibody for cubilin siRNA (m): sc-40100.

Molecular Weight of cubilin: 460 kDa.

Positive Controls: mouse kidney extract: sc-2255 or rat kidney extract: sc-2394.

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.

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.