BACKGROUND

Members of the LDL receptor gene family, including LDLR (low density lipo-protein receptor), LRP (low density lipoprotein related protein), megalin (also designated GP330), VLDLR (very low density lipoprotein receptor) and ApoER2, are characterized by a cluster of cysteine-rich class A repeats, epidermal growth factor (EGF)-like repeats, YWTD repeats and an O-linked sugar domain. Megalin is expressed on the apical membrane domain of epithelial cells, including proximal kidney tubules, intestine and ependymal cells. Proper folding and trafficking of megalin is facilitated by the receptor-associated protein (RAP), a molecular chaperone that can block the uptake of all known ligands for megalin. Specifically, megalin mediates the uptake of apolipoprotein J (apoJ, also designated Clusterin), which is a binding protein for the β-amyloid peptide, a peptide implicated in Alzheimer’s disease. Megalin is also an antigenic determinant for Heymann nephritis in rats and may be important in the reabsorption of several molecules, including vitamin B12, in the kidney.

CHROMOSOMAL LOCATION

Genetic locus: Lrp2 (mouse) mapping to 2 C2.

SOURCE

megaline (P-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of megalin of rat 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-16478 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

megaline (P-20) is recommended for detection of megalin of mouse and 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 megalin siRNA (m): sc-40104, megalin siRNA (r): sc-108041, megalin shRNA Plasmid (m): sc-40104 SH, megalin shRNA Plasmid (r): sc-108041-SH, megalin shRNA (m) Lentiviral Particles: sc-40104-V and megalin shRNA (r) Lentiviral Particles: sc-108041-V.

Molecular Weight of megalin: 600 kDa.

Positive Controls: mouse kidney extract: sc-2255.

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.

DATA

SELECT PRODUCT CITATIONS


Try megaline (G-9): sc-515750, our highly recommended monoclonal alternative to megaline (P-20).