

megalin (P-20): sc-16478

BACKGROUND

Members of the LDL receptor gene family, including LDLR (low density lipoprotein 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

megalin (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 μ g 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 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

megalin (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 μ g per 100-500 μ 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 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.

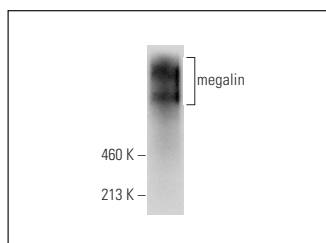
STORAGE

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



megalin (P-20): sc-16478. Western blot analysis of megalin expression in mouse kidney tissue extract.

SELECT PRODUCT CITATIONS

1. Yu, H., et al. 2004. Late gestational lung hypoplasia in a mouse model of the Smith-Lemli-Opitz syndrome. *BMC Dev. Biol.* 4: 1.
2. Spuch, C., et al. 2010. The effect of encapsulated VEGF-secreting cells on brain amyloid load and behavioral impairment in a mouse model of Alzheimer's disease. *Biomaterials* 31: 5608-5618.
3. Toblli, J.E., et al. 2011. Antifibrotic effects of pioglitazone at low doses on the diabetic rat kidney are associated with the improvement of markers of cell turnover, tubular and endothelial integrity, and angiogenesis. *Kidney Blood Press Res.* 34: 20-33.
4. Strotmann, J., et al. 2011. Internalization of odorant-binding proteins into the mouse olfactory epithelium. *Histochem. Cell Biol.* 136: 357-369.
5. Vegt, E., et al. 2011. Renal uptake of different radiolabelled peptides is mediated by megalin: SPECT and biodistribution studies in megalin-deficient mice. *Eur. J. Nucl. Med. Mol. Imaging* 38: 623-632.
6. Spuch, C. and Carro, E. 2011. The p75 neurotrophin receptor localization in blood-CSF barrier: expression in choroid plexus epithelium. *BMC Neurosci.* 12: 39.
7. Fukuda, S., et al. 2011. Aldosterone-induced kidney injury is mediated by NF κ B activation. *Clin. Exp. Nephrol.* 15: 41-49.
8. Sun, Y., et al. 2011. Acquired resistance to rechallenge injury in rats that recovered from mild renal damage induced by uranyl acetate: accelerated proliferation and hepatocyte growth factor/c-Met axis. *Clin. Exp. Nephrol.* 15: 666-675.
9. Miller, G., et al. 2011. Asparagine endopeptidase is required for normal kidney physiology and homeostasis. *FASEB J.* 25: 1606-1617.


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