Human Megalin/LRP2
Alexa Fluor® 700-conjugated Antibody

Monoclonal Mouse IgG_1 Clone # 545606

Catalog Number: FAB9578N

100 µg

DESCRIPTION

Species Reactivity	Human
Specificity	Detects human Megalin/LRP2 in direct ELISAs.
Source	Monoclonal Mouse IgG_1 Clone # 545606
Purification	Protein A or G purified from ascites
Immunogen	Mouse myeloma cell line NS0-derived recombinant human Megalin/LRP2 Pro3510-Lys3964 Accession # P98164
Conjugate	Alexa Fluor 700 Excitation Wavelength: 675-700 nm Emission Wavelength: 723 nm
Formulation	Supplied 0.2 mg/mL in a saline solution containing BSA and Sodium Azide. See Certificate of Analysis for details. *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

APPLICATIONS

Please Note: *Optimal dilutions should be determined by each laboratory for each application. General Protocols are available in the Technical Information section on our website.*

	Recommended Concentration	Sample
Flow Cytometry	0.25-1 µg/10^6 cells	CaCo-2 human cell line

PREPARATION AND STORAGE

Shipping	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
Stability & Storage	**Protect from light. Do not freeze.** ● 12 months from date of receipt, 2 to 8 °C as supplied.

BACKGROUND

Megalin, also known as the low-density lipoprotein receptor-related protein 2 (LRP2), is a large type I transmembrane cell surface protein. This glycoprotein is a multi-ligand endocytic receptor that is expressed in many different tissues but primarily in absorptive epithilial tissues such as the kidney (1). The Megalin protein is critical for the re-uptake of numerous ligands, including lipoproteins, sterols, vitamin-binding proteins, and hormones. This protein also has a role in cell-signaling. Mutations in this gene cause Donnai-Barrow Syndrome (DBS) and Facio-Oculoacoustico-Renal Syndrome (FOAR) (1). Megalin is consisting of a 25 amino acid (aa) probable N-terminal signal peptide sequence, a 4400 aa extracellular region, a 22 aa single transmembrane domain, and a 213 aa C-terminal cytoplasmic tail. The entire extracellular region is made up of 36 class A motifs of putative ligand-binding domains arranged in four distinct clusters, 16 growth factor repeats separated by 8 YWTD spacer regions, and 1 epidermal growth factor-like repeat (2). The extracellular ligand-binding-domains bind diverse macromolecules including albumin, apolipoproteins B and E, and lipoprotein lipase (3). The amino acid 3510-3964 encodes the fourth class A motif cluster in human Megalin, termed Megalin C4. Human Megalin C4 shares 77% and 74% identity with mouse and rat Megalin C4.

References:

1. Christensen, E. I. and Birn, H. (2002) Nat. Rev. Mol. Cell Biol **3**:256.
2. Saito, A. *et al.* (1994) Proc.Natl. Aca. Sci. U. S. A. **91**:9725.
3. Kantarci, S. *et al.* (2007) Nat. Genet **39**:957.

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bio-techne®
Global bio-techne.com info@bio-techne.com techsupport@bio-techne.com TEL +1 612 379 2956
USA TEL 800 343 7475 Canada TEL 855 668 8722 China TEL +86 (21) 52380373
Europe | Middle East | Africa TEL +44 (0)1235 529449