Recombinant Rat Layilin/LAYN Protein (His Tag)

Catalog Number: PKSR030171

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

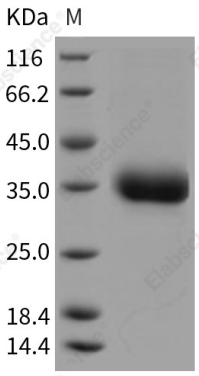
Description

Species	Rat
Source	HEK293 Cells-derived Rat Layilin/LAYN protein Met1-Glu224, with an C-terminal His
Calculated MW	24.3 kDa
Observed MW	34 kDa
Accession	NP_001178926.1
Bio-activity	Not validated for activity

Properties

Purity	> 95% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

Layilin, a recently characterized as a 55 kDa transmembrane protein with homology to C-type lectins, is present in numerous cell lines and tissue extracts. As one of the adaptor proteins, talin mediates the interactions between the actin filaments and the cell membrane by binding to integral membrane proteins and to the cytoskeleton. Layilin is a newly identified membrane-binding site for talin in peripheral ruffles of spreading cells, a ten-amino acid motif in the layilin cytoplasmic domain is sufficient for talin binding, and its adjacent LH2-LH3 tandem arrays in the cytoplasmic domain provide docking sites for talin. Layilin binds specifically to hyaluronan (HA) through its extracellular domain, a ubiquitous extracellular matrix component in most animal tissues and body fluids, but not to other tested glycosaminoglycans. The research suggests that layilin may mediate signals from extracellular matrix to the cell cytoskeleton via interaction with different intracellular binding partners and thereby be involved in the modulation of cortical structures in the cell. All the above actions reveal an interesting parallel between layilin and the known HA receptor CD44. In addition, merlin and radixin have been identified as different intracellular binding partners of layilin. Accordingly, it has been suggested that layilin plays roles in a variety of cellular processes, including cell shape, adhesion, motility, and homeostasis, as well as signal transduction. In addition, layilin might play an important role in the process of invasion and lymphatic metastasis of lung carcinoma.

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