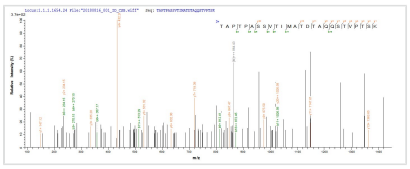
Recombinant Human Podocalyxin (PODXL), partial

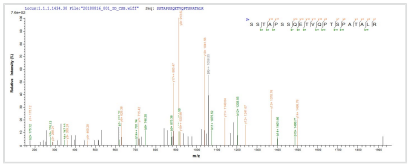
Product Code	CSB-EP518830HU
Relevance	Involved in the regulation of both adhesion and cell morphology and cancer progression. Function as an anti-adhesive molecule that maintains an open filtration pathway between neighboring foot processes in the podocyte by charge repulsion. Acts as a pro-adhesive molecule, enhancing the adherence of cells to immobilized ligands, increasing the rate of migration and cell-cell contacts in an integrin-dependent manner. Induces the formation of apical actin-dependent microvilli. Involved in the formation of a preapical plasma mbrane subdomain to set up inital epithelial polarization and the apical lumen formation during renal tubulogenesis. Plays a role in cancer development and aggressiveness by inducing cell migration and invasion through its interaction with the actin-binding protein EZR. Affects EZR-dependent signaling events, leading to increased activities of the MAPK and PI3K pathways in cancer cells.
Abbreviation	Recombinant Human PODXL protein, partial
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	O00592
Alias	GCTM-2 antigen;Gp200Podocalyxin-like protein 1 ;PC ;PCLP-1
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	QNATQTTTDSSNKTAPTPASSVTIMATDTAQQSTVPTSKANEILASVKATTLGV SSDSPGTTTLAQQVSGPVNTTVARGGGSGNPTTTIESPKSTKSADTTTVATST ATAKPNTTSSQNGAEDTTNSGGKSSHSVTTDLTSTKAEHLTTPHPTSPLSPRQ PTSTHPVATPTSSGHDHLMKISSSSSTVAIPGYTFTSPGMTTTLLETVFHHVSQ AGLELLTSGDLPTLASQSAGITASSVISQRTQQTSSQMPASSTAPSSQETVQP TSPATALRTPTLPETMSSSPTAASTTHRYPKTPSPTVAHESNWAKCEDLETQT QSEKQLVLNLTGNTLCAGGASDEKLISLICRAVKATFNPAQDKCGIRLASVPGS QTVVVKEITIHTKLPAKDVYERLKDKWDELKEAGVSDMKLGDQGPPEEAEDRF
Research Area	Cancer
Source	E.coli
Target Names	PODXL
Expression Region	32-458aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Tag Info	N-terminal 6xHis-tagged
Mol. Weight	48.2kDa
Protein Length	Partial

Image



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP518830HU could indicate that this peptide derived from E.coli-expressed Homo sapiens (Human) PODXL.



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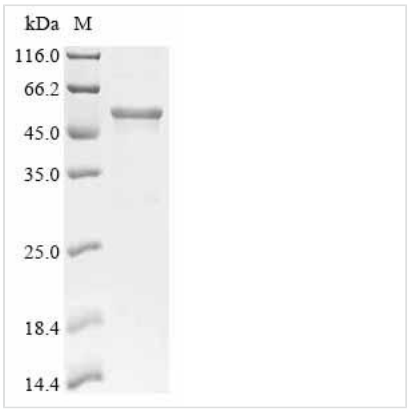

(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The recombinant Human PODXL was expressed with the amino acid range of 32-458. The calculated molecular weight for this PODXL protein is 48.2 kDa. The PODXL protein was expressed in e.coli. Fusion of the N-terminal 6xHis tag into the PODXL encoding gene fragment was conducted, allowing for easier detection and purification of the PODXL protein in subsequent stages.

Human podocalyxin (PODXL) is a transmembrane glycoprotein that is mainly expressed in kidney podocytes, vascular endothelia, and hematopoietic cells. It is involved in various physiological processes, including cell adhesion, migration, and signaling. Its extracellular domain is implicated in interactions with other proteins, influencing cell morphology. In cancer research, PODXL is associated with tumor progression and metastasis. Understanding the functions of PODXL provides insights into developmental biology, kidney physiology, and cancer pathology.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.
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