

## Recombinant Syndecan 4

**Cat. No.** SDC4-4631H    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
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| <b>Product Overview</b> | SDC4 Human Recombinant produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 128 amino acids (19-145a.a.) and having a molecular mass of 13.9 kDa. SDC4 is purified by proprietary chromatographic techniques.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Species</b>          | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Source</b>           | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>ProteinLength</b>    | 19-145 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Description</b>      | Syndecan-4 is a type I integral membrane heparan sulfate proteoglycan (HSPG), which was originally isolated from cloned rat microvascular endothelial cells as an antithrombin-binding molecule, and is now known to be a member of the syndecan family. Syndecan-4 binds to basic fibroblast growth factor (bFGF), midkine, and tissue factor pathway inhibitor via its heparan sulfate chains, and is thought to be involved in various biologic functions such as signaling of bFGF, anticoagulation, and focal adhesion formation. A previous study demonstrated that syndecan-4 is expressed in various tissues, and its level of expression in the kidney is stronger than those of other syndecan family members. Thus, syndecan-4 is thought to play certain roles in maintaining renal function. Moreover, it has been reported that proteoglycans, especially sulfated proteoglycans, are involved in organogenesis of the kidney. |
| <b>Form</b>             | SDC4 solution containing 20mM Tris pH-8, and 10% glycerol.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Purity</b>           | Greater than 85% as determined by SDS-PAGE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |

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| <b>Physical Appearance</b> | Sterile filtered colorless solution.                                                                                                                                                                                        |
| <b>Amino acid sequence</b> | MESIRETEVI DPQDLLEGY FSGALPDDDED VVGPGQESDD FELSGSGDLD<br>DLED SMIGPE VVHPLVPLDN HIPERAGSGS QVPTEPKKLE ENEVIPKRIS<br>PVEESEDVSN KVSMSSSTVQG SNIFERTE.                                                                       |
| <b>Storage</b>             | SDC4 Human Recombinant although stable at 4°C for 1 week, should be stored below -18°C. Please prevent freeze thaw cycles.                                                                                                  |
| <b>Pathways</b>            | Cell adhesion molecules (CAMs); ECM-receptor interaction                                                                                                                                                                    |
| <b>GENE INFORMATION</b>    |                                                                                                                                                                                                                             |
| <b>Gene Name</b>           | SDC4 syndecan 4 [ Homo sapiens ]                                                                                                                                                                                            |
| <b>Official Symbol</b>     | SDC4                                                                                                                                                                                                                        |
| <b>Synonyms</b>            | syndecan 4; SYND4; MGC22217; SDC4; syndecan 4; Amphiglycan; amphiglycan; ryudocan; ryudocan amphiglycan; ryudocan core protein; syndecan 4; syndecan proteoglycan 4; OTTHUMP00000031788; syndecan 4 (amphiglycan, ryudocan) |
| <b>Gene ID</b>             | 6385                                                                                                                                                                                                                        |
| <b>mRNA Refseq</b>         | NM_002999                                                                                                                                                                                                                   |
| <b>Protein Refseq</b>      | NP_002990                                                                                                                                                                                                                   |
| <b>MIM</b>                 | 600017                                                                                                                                                                                                                      |
| <b>UniProt ID</b>          | P31431                                                                                                                                                                                                                      |

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|----------------------------|------------------------------------------------------------------------------------|
| <b>Chromosome Location</b> | 20q12                                                                              |
| <b>Function</b>            | cytoskeletal protein binding; molecular_function; thrombospondin receptor activity |

PDB rendering based on 1ejp.

