Recombinant Human SDC4 protein

Cat. No. SDC4-18H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human SDC4 protein was expressed in Escherichia coli.
Species	Human
Source	E.coli
ProteinLength	127
Description	Syndecan-4 (SYND4) encoded by the SDC-4 gene in humans, has a molecular weight of ~20 kDa. It is one of the four vertebrate syndecans which belong to the syndecan family of Type 1 transmembrane proteins and capable of carrying heparin sulfate (HS) and chondroitin sulfate glycosaminoglycans. Syndecans are the best-characterized plasma membrane proteoglycans with two conserved cytoplasmic domains and divergent extracellular portions, except for HS attachment sites. SYND4 is the most similar to SYND2, but is more universally expressed and is found in virtually every cell type. Expression can be upregulated by TGFβ2 and in response to mechanical stress in smooth muscle, wound healing, arterial injury or acute myocardial infarction, probably in response to at least one inflammatory mediator. SYND4 has more widespread distribution than other syndecans and it is the only syndecan that has been found consistently in focal adhesions. Human SYND4 ECD shares approximately 79%, 78% and 81% a.a. identity with mouse, rat and porcine SYND4 ECD, respectively.
Form	Lyophilized from a 0.2μm filtered concentrated solution in PBS, pH 7.4.

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Bio-activity	Fully biologically active when compared to standard. The specific activity is determined by binding ability in a functional ELISA. Immobilized rHuSYND4 at 500 ng/ml (100 µl/well) can bind rHubFGF with a linear range of 0.1-10 ng/ml.
Molecular Mass	Approximately 13.9 kDa, a single non-glycosylated polypeptide chain containing 127 amino acids. But it migrates with an apparent molecular mass of 22 kDa in SDS-PAGE.
AA Sequence	ESIRETEVIDPQDLLEGRYFSGALPDDEDVVGPGQESDDFELSGSGDLDDLEDSMIGPEVVHPLVPLDNHIPERAGSGSQVPTEPKKLEENEVIPKRISPVEESEDVSNKVSMSSTVQGSNIFERTE
Endotoxin	Less than 0.1 EU/µg of rHuSYND4 as determined by LAL method.
Purity	>95% by SDS-PAGE and HPLC analysis.
Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. 12 months from date of receipt, -20 to -70 centigrade as supplied. 1 month, 2 to 8 centigrade under sterile conditions after reconstitution. 3 months, -20 to -70 centigrade under sterile conditions after reconstitution.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1 % BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at ≤-20 centigrade. Further dilutions should be made in appropriate buffered solutions.

GENE INFORMATION

Gene Name	SDC4

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Official Symbol	SDC4
Synonyms	SDC4; syndecan 4; syndecan 4 (amphiglycan, ryudocan); syndecan-4; amphiglycan; ryudocan; SYND4; syndecan proteoglycan 4; ryudocan amphiglycan; ryudocan core protein; MGC22217;
Gene ID	6385
mRNA Refseq	NM_002999
Protein Refseq	NP_002990
MIM	600017
UniProt ID	P31431

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