

## Recombinant Human Syndecan-4

### Information

<b>Gene ID</b>	6385
<b>Accession #</b>	P31431
<b>Alternate Names</b>	
<b>Source</b>	Escherichia coli.
<b>M.Wt</b>	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.
<b>AA Sequence</b>	ESIRETEVID PQDLLEGRYF SGALPDEEDV VGPGQESDDF ELSGSGDLDD LEDSMIGPEV VHPLVPLDNH IPERAGSGSQ VPTEPKLEE NEVIPKRISP VEESEDVSNK VSMSSTVQGS NIFERTE
<b>Appearance</b>	Sterile Filtered White lyophilized (freeze-dried) powder.
<b>Stability &amp; Storage</b>	Use a manual defrost freezer and avoid repeated freeze-thaw cycles - 12 months from date of receipt, -20 to -70 °C as supplied - 1 month, 2 to 8 °C under sterile conditions after reconstitution - 3 months, -20 to -70 °C under sterile conditions after reconstitution
<b>Formulation</b>	Lyophilized from a 0.2 μm filtered concentrated solution in PBS, pH 7.4.
<b>Reconstitution</b>	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 °C. Further dilutions should be made in appropriate buffered solutions.
<b>Biological Activity</b>	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.
<b>Shipping Condition</b>	Gel pack.
<b>Handling</b>	Centrifuge the vial prior to opening.
<b>Usage</b>	For Research Use Only! Not to be used in humans.

### Components and Storage

Components	5μg	100μg	500μg
Recombinant Human Syndecan-4	5μg	100μg	500μg

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- 12 months from date of receipt, -20 to -70 °C as supplied
- 1 month, 2 to 8 °C under sterile conditions after reconstitution
- 3 months, -20 to -70 °C under sterile conditions after reconstitution

## Quality Control

Purity	> 95 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 0.1 EU/ $\mu$ g of rHuSYND4 as determined by LAL method.

## 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 TGF  $\beta$  2 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.

## Reference

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