

Mouse Syndecan-4 / SDC4 Protein (Fc Tag)

Catalog Number: 50726-M02H



Sino Biological
Biological Solution Specialist

General Information

Gene Name Synonym:

AA959608; AW108331; ryudocan; Synd4; syndecan-4

Protein Construction:

A DNA sequence encoding the mouse SDC4 (O35988)(Met1-Val146) was expressed with the Fc region of human IgG1 at the C-terminus.

Source: Mouse

Expression Host: HEK293 Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Bio Activity:

Measured by its binding ability in a functional ELISA. Immobilized human MDK (Cat:10247-HNAB) at 10 µg/ml (100 µl/well) can bind mouse SDC4-Fc (Cat:50726-M02H) with a linear range of 0.16-1.25 µg/ml.

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: Glu 24

Molecular Mass:

The recombinant mouse SDC4/Fc is a disulfide-linked homodimer. The reduced monomer comprises 364 amino acids and has a predicted molecular mass of 40.5 kDa. The apparent molecular mass of the protein is approximately 33 kDa in SDS-PAGE under reducing conditions due to glycosylation.

Formulation:

Lyophilized from sterile PBS, pH 7.4.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

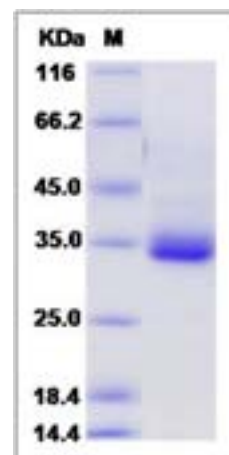
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

SDC4 (Syndecan-4), also known as Syn4, is a transmembrane heparan sulfate proteoglycan that co-operates with integrins during cell-matrix interactions for the assembly of focal adhesions and actin stress fibers and in the phosphorylation of focal adhesion kinase (FAK) on Tyr397. Syndecan-4 plays roles in the formation of focal adhesions and stress fibers. The cytoplasmic domain of syndecan-4 interacts with a number of signalling and structural proteins, and both extracellular and cytoplasmic domains are necessary for regulated activation of associated transmembrane receptors. Syndecan-4/SDC4 is a heparan sulfate proteoglycan and works as a coreceptor for various growth factors. SDC4 deficiency limits neointimal formation after vascular injury by regulating vascular smooth muscle cells (VSMCs) proliferation and vascular progenitor cells (VPCs) mobilization. Therefore, SDC4 may be a novel therapeutic target for preventing arterial restenosis after angioplasty.

References

1. Ikesue M, *et al.* (2011) Syndecan-4 deficiency limits neointimal formation after vascular injury by regulating vascular smooth muscle cell proliferation and vascular progenitor cell mobilization. *Arterioscler Thromb Vasc Biol.* 31(5): 1066-74.
2. Saoncella S, *et al.* (2004) Syndecan-4 regulates ATF-2 transcriptional activity in a Rac1-dependent manner. *J Biol Chem.* 279(45): 47172-6.
3. Bass MD, *et al.* (2002) Cytoplasmic interactions of syndecan-4 orchestrate adhesion receptor and growth factor receptor signalling. *Biochem J.* 368(Pt 1): 1-15.

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