

## Serglycin Human HEK293

### Product Data Sheet

**Type:** Recombinant

**Source:** HEK293

**Species:** Human

**Other names:** Hematopoietic proteoglycan core protein, Platelet proteoglycan core protein, P.PG, Secretory granule proteoglycan core protein,, SRGN

**Cat. No.:**

RD172368100-HEK (0.1 mg)

### Description

Total 137 AA. MW: 15.5 kDa (calculated). UniProtKB acc. No. P10124 (Tyr28-Leu158). C-terminal His-tag (6 extra AA).

### Introduction to the Molecule

In a recent study serglycin was found to be among the most abundantly expressed proteins in adipocytes of epicardial adipose tissue in patients with coronary artery disease (CAD). It was demonstrated that TNF $\alpha$  induces expression and secretion of serglycin in adipocytes. Circulating serglycin might also participate in the mechanism of systemic vascular insult and atheromatous change. Serglycin is a dominant intracellular proteoglycan expressed by immune cells, where it interacts with numerous inflammatory mediators, such as proteases, chemokines, cytokines, and growth factors. Serglycin is implicated in their storage into the granules and their protection since they are secreted as complexes and delivered to their targets after secretion. Serglycin secretion can be induced in several cell types upon external inflammatory stimulation. The biosynthesis of serglycin is up-regulated by lipopolysaccharide (LPS) in macrophages, tumor necrosis factor (TNF) in endothelial cells and adipocytes and interleukin 1 $\beta$  (IL-1 $\beta$ ) in smooth muscle cells. Another interesting implication of serglycin in the regulation of immune system is its ability to inhibit complement system activity. Serglycin is also involved in apoptosis and immune regulation. Mast cells lacking serglycin expression preferentially died by necrosis rather than apoptosis. Serglycin has been shown to be a biomarker of acute myeloid leukemia (levels are higher than in acute lymphoblastic leukemia patients). Invasive nasopharyngeal carcinoma (NPC) cells secrete higher levels of serglycin and expression is elevated in NPC cells with higher metastasis potential. Serglycin is also highly expressed in breast cancer tissues and by an aggressive breast cancer cell line.

### Research topic

Apoptosis, Cardiovascular disease, Immune Response, Infection and Inflammation, Oncology

### Amino Acid Sequence

YPTRRARYQW VRCNPDSNSA NCLEEKGPMF ELLPGESNKI PRLRTDLFPK TRIQDLNRIF PLSYDYSYSGSG FGSGSGSGSG  
SGSGFLTEME QDYQLVDESD AFHDNLRSLD RNLPSDSQDL GQHGLEEDFM L **HHHHHH**

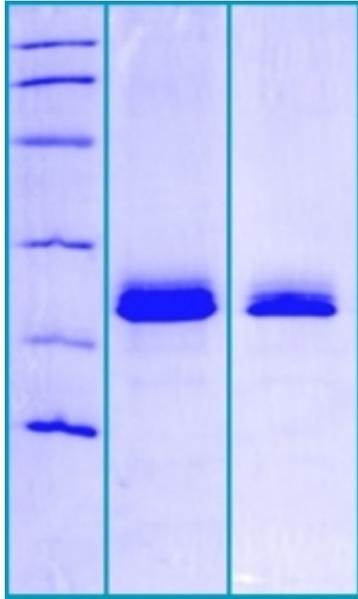
### Source

HEK293

### Purity

Purity as determined by densitometric image analysis: > 95%

## SDS-PAGE gel



14 % SDS-PAGE separation of Human Serglycin (HEK):

1. M.W. marker - 14, 21, 31, 45, 66, 97 kDa

2. Reduced and boiled sample, 2.5 µg/lane

3. Non-reduced and non-boiled sample, 2.5 µg/lane

## Endotoxin

< 1.0 EU/µg

## Formulation

0.25-0.70 mg/ml solution in phosphate buffered saline, 20 % (w/v) glycerol, filtered (0.4 µm), frozen.

## Reconstitution

Defrost at ambient temperature. Filter sterilize your culture media/working solutions containing this non-sterile product before using in cell culture.

## Shipping

On ice. Upon receipt, store the product at the temperature recommended below.

## Storage, Stability/Shelf Life

Store protein at -80°C. Protein remains stable until the expiry date when stored at -80°C. Avoid repeated freezing/thawing cycles.

## Quality Control Test

BCA to determine quantity of the protein.

SDS-PAGE to determine purity of the protein.

LAL TEST to determine endotoxin level.

## Applications

Cell culture and/or animal studies, ELISA, Western blotting

## Note

This product is intended for research use only.

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