

Recombinant human SPARC protein

Catalog Number: ATGP3902

PRODUCT INFORMATION

Expression system

Baculovirus

Domain

18-303aa

UniProt No.

P09486

NCBI Accession No.

NP_003109

Alternative Names

SPARC, Basement-membrane protein 40, BM-40, Osteonectin, ON, Secreted protein acidic and rich in cysteine, OI17

PRODUCT SPECIFICATION

Molecular Weight

33.8 kDa (295aa)

Concentration

0.5mg/ml (determined by absorbance at 280nm)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

Purity

> 90% by SDS-PAGE

Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

Tag

His-Tag

Application

SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

SPARC, also known as osteonectin, is a member of secreted matricellular proteins. It is produced by fibroblasts, capillary endothelial cells, platelets and macrophages, especially in areas of tissue morphogenesis and remodeling. This protein regulates cell growth through interactions with the extracellular matrix and cytokines

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and binds calcium and copper, several types of collagen, albumin, thrombospondin, PDGF and cell membranes. It functions as modulating cell-cell and cell-matrix interactions and its de-adhesive and growth inhibitory properties in non-transformed cell. It is secreted by osteoblasts during bone formation, initiating mineralization and promoting mineral crystal formation. A correlation between SPARC over-expression and ampullary cancers and chronic pancreatitis has been found. It also shows affinity for collagen in addition to bone mineral calcium. Recent studies have also demonstrated a role for SPARC in sensitizing therapy-resistant cancers. Notably, it is linked to human obesity. Recombinant human SPARC, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

<ADP>APQQEAL PDETEVVEET VAEVTEVSVG ANPVQVEVGE FDDGAEETEE EVVAENPCQN HHCKHGKVCCE
LDENNTPMCVC QDPPTSCPAP IGEFEKVCSN DNKTFDSSCH FFATKCTLEG TTKGHLHLD YIGPCKYIPP CLDSELTEFP
LRMRDWLKNV LVTLYERDED NLLTEKQKL RVKKIHENEK RLEAGDHPVE LLARDFEKNY NMYIFPVHWQ FGQLDQHPID
GYLSHTELAP LRAPLIPMEH CTTRFFETCD LDNDKYIALD EWAGCFGIKQ KDIDKDLVI<H HHHHH>

General References

McDonald LT., et al. (2018) Am J Physiol Heart Circ Physiol. 315(1):H92-H100.
Wang B., et al. (2018) J Biol Regul Homeost Agents. 32:1525-1531.

DATA

SDS-PAGE

3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

