

# SPARC/Osteonectin, human recombinant

<b>CATALOG #:</b>	7204-10	10 µg
	7204-50	50 µg
<b>ALTERNATE NAMES:</b>	Secreted protein acidic and rich in cysteine, BM-40, ON	
<b>SOURCE:</b>	CHO cells	
<b>PURITY:</b>	≥ 97% by SDS-PAGE gel and HPLC analyses	
<b>MOL. WEIGHT:</b>	43.7 kDa	
<b>ENDOTOXIN LEVEL:</b>	< 0.1 ng/µg of protein (<1EU/µg).	
<b>FORM:</b>	Lyophilized	
<b>FORMULATION:</b>	Sterile filtered through a 0.2 micron filter. Lyophilized from 10 mM Sodium Phosphate, pH 7.6	
<b>STORAGE CONDITIONS:</b>	Store at -20°C. After reconstitution, aliquot and store at -20°C to -80°C. Avoid repeated freezing and thawing cycles.	

**RECONSTITUTION:**

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.1-1.0 mg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

**DESCRIPTION:**

SPARC/Osteonectin is a secreted, evolutionarily conserved collagen-binding glycoprotein that is involved in a variety of cellular activities. It is highly expressed in tissues undergoing morphogenesis, remodeling and wound repair. SPARC/Osteonectin and its related peptides bind to numerous proteins of the extracellular matrix (ECM), affect ECM protein expression, influence cellular adhesion and migration, and modulate growth factor-

induced cell proliferation and angiogenesis. SPARC/Osteonectin consists of three domains; an N-terminal acidic region that binds calcium ions with low affinity, a module containing two EF-hand motifs that bind calcium with high affinity, and a cysteine-rich follistatin-like domain. Recombinant human SPARC/Osteonectin is a glycoprotein containing 286 amino acids that migrates at an apparent MW of 43.7 kDa by SDSPAGE analysis due to the effect of glycosylation

**AMINO ACID SEQUENCE:**

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APQQEALPDE  TEVVEETVAE  VTEVSVGANP  VQVEVGEFDD  GAEETEEEVV
AENPCQNHHC  KHGKVCDELDE NNTPMCVCQD  PTSCPAPIGE  FEKVCSNDNK
TFDSSCHFFA  TKCTLEGTKK  GHKLHLDYIG  PCKYIPPCLD  SELTEFPLRM
RDWLKKNLVT  LYERDEDNNL  LTEKQKLRVK  KIHENEKRLE  AGDHPVELLA
RDFEKNYMY   IFPVHWQFGQ  LDQHPIDGYL  SHTELAPLRA  PLIPMEHCTT
RFFETCDLDN  DKYIALDEWA  GCFGIKQKDI  DKDLVI
    
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**BIOLOGICAL ACTIVITY:**

Determined by its ability to increase alkaline phosphatase activity in differentiating MC3T3 cells using a concentration of 0.5 – 0.7 µg/ml

**RELATED PRODUCTS:**

- PDGF-AA, human recombinant (Cat # 4482-10, -50, -1000)
- PDGF-AA, murine recombinant (Cat # 4483-10, -1000)
- PDGF-AB, human recombinant (Cat # 4485-10, -50, -1000)
- PDGF-BB, human recombinant (Cat # 4488-10, -50, -1000)
- PDGF-BB, murine recombinant (Cat # 4489-10, -50, -1000)

**FOR RESEARCH USE ONLY! Not to be used in humans.**