

SPARC/Osteonectin, human recombinant

CATALOG #:	7204-10	10 µg
	7204-50	50 µg
ALTERNATE NAMES:	Secreted protein acidic and rich in cysteine, BM-40, ON	
SOURCE:	CHO cells	
PURITY:	≥ 97% by SDS-PAGE gel and HPLC analyses	
MOL. WEIGHT:	43.7 kDa	
ENDOTOXIN LEVEL:	< 0.1 ng/µg of protein (<1EU/µg).	
FORM:	Lyophilized	
FORMULATION:	Sterile filtered through a 0.2 micron filter. Lyophilized from 10 mM Sodium Phosphate, pH 7.6	
STORAGE CONDITIONS:	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 SDS-PAGE analysis due to the effect of glycosylation

AMINO ACID SEQUENCE:

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

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.