



Recombinant Human SPARC (Osteonectin)

20220113BB



FOR RESEARCH ONLY! NOT FOR HUMAN USE!

Cat.-no.:	100-399
Size:	50 µg
Lot. No.:	According to product label

Scientific Background

Gene-ID (NCBI):	6678
Synonyms:	SPARC; ON

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.

Sequence

APQQEALPDE TEVVEETVAE VTEVSVGANP VQVEVGEFDD
 GAEETEEEVV AENPCQNHHC KHGKVCLEDE NNTPMCVCQD
 PTSCPAPIGE FEKVCSDNKNK TFDSSCHFFA TKCTLEGTKK
 GHKLHLDYIG PCKYIPPCLD SELTEFPLRM RDWLKNVLT
 LYERDEDNNL LTEKQKLRVK KIHENEKRL EAGDHPVELLA
 RDFEKYNMY IFPVHWQFGQ LDQHPIDGYL SHTELAPLRA
 PLIPMEHCTT RFFETCDLDN DKYIALDEWA GCFGIKQKDI DKDLVI

Database References

Protein RefSeq:	NP_003109.1
Uniprot ID:	P09486
mRNA RefSeq:	NM_003118.3

Product Specifications

Expressed in	CHO cells
Purity	> 97% by SDS-PAGE & HPLC analyses
Endotoxin level	< 0.1 ng /µg of protein (<1EU/µg).
Formulation	Lyophilized (10mM Sodium Phosphate, pH 7.6)
Length (aa):	286
MW:	43.7 kDa

Stability: The lyophilized protein is stable at room temperature for 1 month and at 4°C for 3 months. Reconstituted working aliquots are stable for 1 week at 2°C to 8°C and for 3 months at -20°C to -80°C.

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.



AVOID REPEATED FREEZE AND THAW CYCLES!

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.