



# Recombinant Protein Technical Manual

## Recombinant Human Osteonectin/SPARC Protein (His Tag) RPES0953

### Product Data:

**Product SKU:** RPES0953

**Size:** 10µg

**Species:** Human

**Expression host:** Human Cells

**Uniprot:** P09486

### Protein Information:

**Molecular Mass:** 33.7 kDa

**AP Molecular Mass:** 36 kDa

**Tag:** C-6His

**Bio-activity:**

**Purity:** > 95 % as determined by reducing SDS-PAGE.

**Endotoxin:** < 1.0 EU per µg as determined by the LAL method.

**Storage:** Lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

**Shipping:** This product is provided as lyophilized powder which is shipped with ice packs.

**Formulation:** Lyophilized from a 0.2 µm filtered solution of 20mM PB, 150mM NaCl, pH 7.2.

**Reconstitution:** Please refer to the printed manual for detailed information.

**Application:**

**Synonyms:** SPARC; Basement-Membrane Protein 40; BM-40; Osteonectin; ON; Secreted Protein Acidic and Rich in Cysteine; SPARC; ON

## Immunogen Information:

**Sequence:** Ala18-Ile303

## Background:

Secreted Protein Acidic and Rich in Cysteine (SPARC) is a secreted, evolutionarily conserved collagen-binding glycoprotein and belongs to the SPARC family. SPARC has 286 amino acids and contains an EF-hand in C-terminal domain, a follistatin-like domain with Kazal-like sequences. There are two calcium binding sites, one binds 5 - 8 Ca<sup>2+</sup> with a low affinity and other on an EF-hand loop that binds a Ca<sup>2+</sup> ion with a high affinity. It is highly expressed in tissues undergoing morphogenesis, remodeling and wound repair. SPARC regulate cell growth through interactions with the extracellular matrix (ECM) and cytokines. SPARC bind to numerous proteins of the ECM, affect ECM protein expression, influence cellular adhesion and migration, and modulate growth factor-induced cell proliferation and angiogenesis. SPARC also binds several types of collagen, albumin, thrombospondin, PDGF and cell membranes.