ProductInformation

SPARC
(Secreted Protein Acidic and Rich in Cysteine)

Product No. **S 5174**

Product Description

SPARC (Secreted Protein Acidic and Rich in Cysteine), also termed osteonectin, BM-40 and 43K protein, is a 283-287 AA Ca^{2+} binding glycoprotein with an apparent molecular weight of 40-43 kDa.[1] SPARC is expressed in many tissues including bone, skin, skeletal muscle, reproductive tissues and embryonic connective tissue.[2] High levels of SPARC are expressed in tissues undergoing morphogenesis, remodeling and repair.[3-5] SPARC is purified from mouse parietal yolk sac (PYS-2) cells under conditions that preserve biological activity.[2,6,13]

SPARC is sterile filtered then lyophilized from phosphate buffered saline at 25 µg protein/vial. Reconstitute aseptically with sterile water to obtain a solution of 0.1 to 0.3 mg protein per ml.

Product Profile

SPARC exerts a variety of properties including:

- Inhibits cell spreading and diminishes focal contacts *in vitro*[6] (anti-adhesive activity).
- Effects the expression of matrix components and the activity of a variety of enzymes that might act to regulate cellular interactions with ECM.
- Abrogates the effects of PDGF and β-FGF.[8]
- Binds directly to several components of the ECM that include collagen[6] and thrombospondin,[9] and to albumin.[10]
- Undergoes proteolysis that expose and release regions in the protein that correlates with biological activities, such as stimulation of angiogenesis.[11,12]

Consult the following references for additional application information.

Storage

Store lyophilized powder frozen at –20 °C. Store reconstituted product at –70 °C.

References

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