Recombinant Human SPARC Protein(Trx Tag)

Catalog Number: PDEH100650

Note: *Centrifuge before opening to ensure complete recovery of vial contents.*

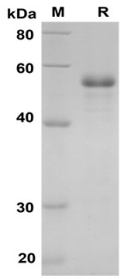
Description

Species	Human
Source	E.coli-derived Human SPARC protein Ala18-Ile303, with an N-terminal Trx
Calculated MW	51.5 kDa
Observed MW	52 kDa
Accession	P09486
Bio-activity	Not validated for activity

Properties

Purity	> 95% as determined by reducing SDS-PAGE.
Endotoxin	< 10 EU/mg of the protein as determined by the LAL method
Storage	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80 ℃. Reconstituted protein solution can be stored at 4-8℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ 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 in PBS with 5% Trehalose and 5% Mannitol.
Reconstitution	It is recommended that sterile water be added to the vial to prepare a stock solution of 0.5 mg/mL. Concentration is measured by UV-Vis.

Data



SDS-PAGE analysis of Human SPARC proteins, 2μg/lane of Recombinant Human SPARC proteins was resolved with SDS-PAGE under reducing conditions, showing bands at 52 KD

Background

Secreted protein acidic and rich in cysteine (SPARC), also known as Osteonectin (ON), is a member of the SPARC family. SPARC consists of three domains: an EF-hand domain, a follistatin-like domain and a Kazal-like domain, and each of which has independent activity and unique properties. The activity of SPARC is context- and cell-type-dependent, which is highlighted by the fact that SPARC has shown seemingly contradictory effects on tumor progression in both clinical correlative studies and in animal models. The location of SPARC in the nuclear matrix of certain proliferating cells, but only in the cytosol of postmitotic neurons, indicates potential functions of SPARC as a nuclear protein, which might be involved in the regulation of cell cycle progression and mitosis. It functions not only to modulate cell-cell and cell-matrix interactions, but its de-adhesive and growth inhibitory properties in non-transformed cells have led to studies to assess its role in cancer. Its divergent actions reflect the complexity of this protein, because in certain types of cancers, such as melanomas and gliomas, SPARC is associated with a highly aggressive tumor phenotype, while in others, mainly ovarian, neuroblastomas and colorectal cancers, SPARC may function as a tumor suppressor. Recent studies have also demonstrated a role for SPARC in sensitizing therapy-resistant cancers. Notably, SPARC is linked to human obesity.

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