

Recombinant Human SerpinB3/SCCA1 Protein (His Tag)

Catalog Number: PKSH030698

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

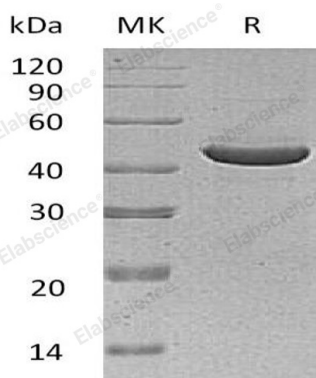
Description

Species	Human
Source	Baculovirus-Insect Cells-derived Human SerpinB3/SCCA1 protein Asn 2-Pro 390, with an N-terminal His
Calculated MW	46.7 kDa
Observed MW	43 kDa
Accession	AAB20405.1
Bio-activity	Measured by its ability to inhibit active Cathepsin L cleavage of a fluorogenic peptide substrate Z-LR-AMC, R&D Systems, Catalog # ES008. The IC50 is < 5 nM.

Properties

Purity	> 97 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per µg 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 °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 sterile 20mM Tris, 500mM NaCl, pH 7.4, 20% glycerol, 3mM DTT. Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization.
	Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 97 % as determined by reducing SDS-PAGE.

Background

For Research Use Only

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SERPINB3, also known as SCCA-1, belongs to the serpin family. Serpins are a group of proteins with similar structures that were first identified as a set of proteins able to inhibit proteases. The acronym serpin was originally coined because many serpins inhibit chymotrypsin-like serine proteases. SERPINB3 is expressed in some hepatocellular carcinoma (at protein level). Its expression is closely related to cellular differentiation in both normal and malignant squamous cells. It seems to also be secreted in plasma by cancerous cells but at a low level. SERPINB3 significantly attenuates apoptosis by contrasting cytochrome c release from the mitochondria and by antichemotactic effect for NK cells. It may act as a protease inhibitor to modulate the host immune response against tumor cells and may be involved in the malignant behavior of squamous cell carcinoma cells.