



Recombinant Protein Technical Manual

Recombinant Human SerpinB3/SCCA1 Protein (His Tag)(Active)

RPES0726

Product Data:

Product SKU: RPES0726

Size: 10µg

Species: Human

Expression host: Baculovirus-Insect Cells

Uniprot: AAB20405.1

Protein Information:

Molecular Mass: 46.7 kDa

AP Molecular Mass: 43 kDa

Tag: N-His

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.

Purity: > 97 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg of the protein 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 sterile 20mM Tris, 500mM NaCl, pH 7.4, 20% gly, 3mM DTT

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

Application:

Synonyms: Serpin B3; Protein T4-A; Squamous cell carcinoma antigen 1; SCCA;serine (or cysteine) proteinase inhibitor, clade B (ovalbumin), member 3; serpin peptidase inhibitor, clade B (ovalbumin), member 3; Squamous cell carcinoma antigen 1;T4-A;SCCA1;HsT1196;SCC;SCCA;SCCA-PD

Immunogen Information:

Sequence: Asn 2-Pro 390

Background:

SERPINB3, also known as SCCA, 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.