



Recombinant Protein Technical Manual

**Recombinant Human SERPINB9/PI-9 Protein
(Human Cells, His Tag)**
RPES1829

Product Data:

Product SKU: RPES1829

Size: 10µg

Species: Human

Expression host: Human Cells

Uniprot: P50453

Protein Information:

Molecular Mass: 43.4 kDa

AP Molecular Mass: 35-40 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,pH7.4.

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

Application:

Synonyms: Cytoplasmic antiproteinase 3;Peptidase inhibitor 9;CAP3;PI-9;Serpine B9

Immunogen Information:

Sequence: Met 1-Pro376

Background:

Serpin B9, also known as Cytoplasmic antiproteinase 3(CAP-3), is a cytoplasm protein which belongs to the large superfamily of serine proteinase inhibitors (serpins), which bind to and inactivate serine proteinases. Serpin B9 is an inhibitor of the granzyme B/perforin lytic pathway. It is expressed in normal mammary epithelial cells but not in most mammary carcinoma cell lines. These interactions are involved in many cellular processes, including coagulation, fibrinolysis, complement fixation, matrix remodeling, and apoptosis. Serpin-B9 expression in immune-privileged cells, APCs, and CTLs protects these cells against the actions of granzyme B, and when expressed in tumor cells or virally infected hepatocytes, confers resistance to killing by CTL and NK cells. Expression of increasing levels of Serpin-B9 in target cells may progressively inhibit immune surveillance by blocking NK and CTL-induced cytotoxicity through the perforin / granzyme pathway and then through the Fas / FasL pathway.