

## Recombinant Human SERPINB9/PI-9 Protein (Baculovirus, His Tag)

**Catalog Number:** PKSH030777

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

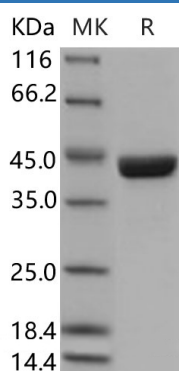
### Description

<b>Species</b>	Human
<b>Source</b>	Baculovirus-Insect Cells-derived Human SERPINB9/PI-9 protein Glu 2-Pro 376, with an N-terminal His
<b>Calculated MW</b>	44.5 kDa
<b>Observed MW</b>	43 kDa
<b>Accession</b>	P50453
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 97 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	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.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile 50mM Tris, 100mM NaCl, pH 7.4 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.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

### Data



> 97 % as determined by reducing SDS-PAGE.

### Background

### For Research Use Only

SerpinB9; also known as Cytoplasmic antiproteinase 3; CAP-3; Peptidase inhibitor 9; SERPINB9 and PI-9; is a cytoplasm protein which belongs to the serpin family and Ov-serpin subfamily. Serpin-B9 (CAP-3 / PI-9) is the only known human intracellular inhibitor of granzyme B (GrB); the effector molecule in immunity against cytomegalovirus (CMV) and in renal allograft rejection. Serpin-B9 and SPI-6 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 (CAP-3 / PI-9) 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. Serpin-B9 (CAP-3 / PI-9) is selectively up-regulated in hepatocytes in response to infiltration of the liver by NK cells that express perforin and enzymatically active granzyme B. Upregulated expression of Serpin-B9 (CAP-3 / PI-9) in NSCLC cells may serve to protect them from apoptosis induced by GrB.