

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

**Catalog Number:** PKSH033318

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

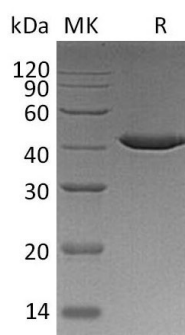
### Description

<b>Species</b>	Human
<b>Source</b>	HEK293 Cells-derived Human SERPINB9/PI-9 protein Met 1-Pro376, with an C-terminal His
<b>Calculated MW</b>	43.4 kDa
<b>Observed MW</b>	35-40 kDa
<b>Accession</b>	P50453
<b>Bio-activity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95 % 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 a 0.2 µm filtered solution of 20mM PB, 150mM 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



> 95 % as determined by reducing SDS-PAGE.

### Background

### For Research Use Only

Toll-free: 1-888-852-8623  
Web: [www.elabscience.com](http://www.elabscience.com)

Tel: 1-832-243-6086  
Email: [techsupport@elabscience.com](mailto:techsupport@elabscience.com)

Fax: 1-832-243-6017

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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.