

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



Catalog Number:PKSH030777

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

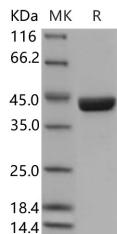
Description

| | |
|------------------------------------|---|
| Synonyms | Cytoplasmic antiproteinase 3;Peptidase inhibitor 9;CAP3;PI-9;Serpine B9 |
| Species | Human |
| Expression Host | Baculovirus-Insect Cells |
| Sequence | Glu 2-Pro 376 |
| Accession | P50453 |
| Calculated Molecular Weight | 44.5 kDa |
| Observed molecular weight | 43 kDa |
| Tag | N-His |

Properties

| | |
|-----------------------|--|
| Purity | > 97 % as determined by reducing SDS-PAGE. |
| Endotoxin | < 1.0 EU per μ g 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 50mM Tris, 100mM NaCl, pH 7.4 Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 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

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

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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.

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