Recombinant Human Prostasin/PRSS8 Protein (His Tag)

Catalog Number: PKSH031709

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

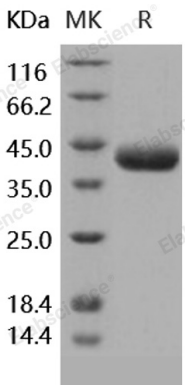
Description

Species	Human
Source	HEK293 Cells-derived Human Prostasin/PRSS8 protein Ala 30-Arg 322, with an C-terminal His
Calculated MW	32.8 kDa
Observed MW	40 kDa
Accession	NP_002764.1
Bio-activity	Measured by its ability to cleave the fluorogenic peptide substrate Boc-QAR-AMC (R&D Systems, Catalog # ES014). The specific activity is > 10 pmoles/min/μg.

Properties

Purity	> 97 % as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg 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 25 mM Tris, 150 mM NaCl, 10 mM CaCl2，pH 7.4.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 97 % as determined by reducing SDS-PAGE.

Background

Prostasin (Prss8), also known as channel activating protease 1 (CAP1), is a trypsinlike serine peptidase, and plays important roles in epithelial physiology. It is originally purified as an active, soluble enzyme from human seminal fluid and is highly expressed in prostate, lung, kidney, salivary gland and pancreas. Prostasin is expressed as a glycosyl-phosphatidylinositol (GPI)-anchored membrane protein in prostate epithelial cells, and also exists as a secreted proteolytic enzyme possibly via tryptic cleavage of its COOH-terminal hydrophobic domain. Prostasin is found to activate the epithelial sodium channel (ENaC) which is tightly regulated and is critical for maintaining salt and fluid balance in the lung and kidney in both normal and pathological conditions. Accordingly, prostasin has been proposed as a target for therapeutic inhibition in cystic fibrosis. In addition, prostasin inhibits prostate and breast cancer cell invasion in vitro, suggesting a functional role as a suppressor of tumor invasion, as well as a regulator of gene expression during inflammation.

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