Recombinant Protein Technical Manual

Recombinant Human Prostasin/PRSS8 Protein (His Tag)(Active)

RPES4797

Product Data:

Product SKU: RPES4797

Size: 10µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_002764.1

Protein Information:

Molecular Mass:	32.8 kDa
AP Molecular Mass:	40 kDa
Tag:	C-His
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.
Purity:	> 97 % 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℃ for 2-7 days. Aliquots of reconstituted samples are stable at < -20℃ for 3 months.
Shipping:	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation:	Lyophilized from sterile PBS, pH 7.4
Reconstitution:	Please refer to the printed manual for detailed information.
Application:	
Synonyms:	CAP1;PROSTASIN

Immunogen Information:

Sequence: Ala 30-Arg 322

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.