

Recombinant Human MMP7 protein(N-His)

Catalog No. PKSH034173

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

Description

Synonyms	MMP-7, MPSL1, PUMP-1
Species	Human
Expression Host	E.coli
Sequence	MRLTVLCAVCLLPGSLALPLPQEAGGMSELQWEQAQDYLRFYLYDSETK NANSLEAKLKEMQKFFGLPITGMLNSRVIEIMQKPRCGVPDVAEYSLFPNSP KWTSKVVITYRIVSYTRDLPHITVDRLVSKALNMWGKEIPLHFRKVVWGTA DIMIGFARGAHGDSYPFDGPGNTLAHAFAPGTGLGGDAHFDEDERWTDGS SLGINFLYAATHELGHSLGMGHSSDPNAV MYPTYGNGDPQNFKLSQDDIKG IQKLYGKRSNSRKK
Accession	P09237
Calculated Molecular Weight	30.50 kDa
Tag	N-His
Bioactivity	Testing in progress

Properties

Purity	> 98 % as determined by reducing SDS-PAGE.
Endotoxin	< 0.1 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 PBS, pH 8.0 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.

Background

Matrix metalloproteinases (MMPs) are a family of zinc and calcium dependent endopeptidases with the combined ability to degrade all the components of the extracellular matrix. MMP-7 (matrilysin) is expressed in epithelial cells of normal and diseased tissues, and is capable of digesting a large series of proteins of the extracellular matrix including collagen IV and X, gelatin, casein, laminin, aggrecan, entactin, elastin and versican. MMP-7 is implicated in the activation of other proteinases such as plasminogen, MMP-1, MMP-2, and MMP-9. In addition to its roles in connective tissue remodeling and cancer, MMP-7 also regulates intestinal alpha -defensin activation in innate host defense, releases tumor necrosis factor-alpha in a model of herniated disc resorption, and cleaves FasL to generate a soluble form in a model of prostate involution. Structurally, MMP-7 is the smallest of the MMPs and consists of two domains: a pro-domain that is cleaved upon activation and a catalytic domain containing the zinc-binding site.

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