# Recombinant Protein Technical Manual

## Recombinant Human MMP7 Protein (Fc Tag)

**RPES4858**

## Product Data:

**Product SKU:** RPES4858

**Size:** 10µg

**Species**: Human

**Expression host:** HEK293 Cells

**Uniprot:** NP_002414.1

## Protein Information:

| | |
|---|---|
| **Molecular Mass:** | 45.8 kDa |
| **AP Molecular Mass:** | 55 kDa |
| **Tag:** | N-Fc |
| **Bio-activity:** | |
| **Purity:** | > 95 % 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 100mM Glycine, 10mM NaCl, 50mM Tris, pH 7.5 |
| **Reconstitution:** | Please refer to the printed manual for detailed information. |
| **Application:** | |
| **Synonyms:** | MMP-7;MPSL1;PUMP |

## Immunogen Information:

**Sequence:** Tyr 95-Lys 267

## Background:

Matrix metalloproteinases (MMPs) are a family of zinc-dependent endopeptidases that degrade components of the extracellular matrix (ECM) and play essential roles in various physiological and pathological processes such as morphogenesis, differentiation, angiogenesis, tissue remodeling, and tumor invasion. MMPs are synthesized as pro-enzymes and converted to active form by extracellular proteinases. MMP7, also referred to as matrilysin, is the smallest member of the MMP family and differs from other MMP members in that it lacks the C-terminal hemopexin-like domain. MMP7 is produced primarily by mucosal epithelia, and is capable of degrading various ECM proteins including proteoglycans, fibronectin, elastin and casein. This enzyme serves essential functions in both innate defense and wound healing, and appears to be one of the most important MMPs in human colon cancers. It has been reported that MMP7 contributes to tumor malignancy probably by cleaving cell surface proteins such as Fas ligand, degradation of IgG or inducing E-cadherin-mediated cell aggregation. In addition, matrilysin is also identified as a mediator of pulmonary fibrosis and a potential therapeutic target.