Recombinant Protein Technical Manual

Recombinant Human MMP1 Protein (His Tag)

RPES4353

Product Data:

Product SKU: RPES4353

Size: 10µg

Species: Human

Expression host: Human Cells

Uniprot: P03956

Protein Information:

Molecular Mass: 52.88 kDa

AP Molecular Mass: 56 kDa

Tag: C-6His

Bio-activity:

Purity: > 95 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.

Shipping: This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at<-20°C.

Formulation: Supplied as a 0.2 µm filtered solution of 20mM MES, 150mM NaCl, 0.05% Brij35, pH 5.5.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Interstitial Collagenase; Fibroblast Collagenase; Matrix Metalloproteinase; MMP; MMP1; CLG

Immunogen Information:

Sequence: Phe20-Asn469

Background:

Matrix Metalloproteinase (MMP) is expressed by fibroblasts, keratinocytes, endothelial cells, monocytes and macrophages. MMP1 contains several distinct domains: a prodomain that is cleaved upon activation, a catalytic domain containing the zinc binding site, a short hinge region, and a carboxyl terminal (hemopexin like) domain. MMP can degrade a broad range of substrates including types I, II, III, VII, VIII, and X collagens as well as casein, gelatin, α1 antitrypsin, myelin basic protein, L-Selectin, pro-TNF, IL1, IGFBP3, IGFBP5, pro-MMP2, and pro-MMP9. A significant role of MMP1 is the degradation of fibrillar collagens in extracellular matrix remodeling, characterized by the cleavage of the interstitial collagen triple helix into 3/4, 1/4 fragments. MMP1 may also be involved in enzyme cascades, cytokine regulation and cell surface molecule modulation.