Recombinant Human MMP1 Protein (His Tag)

Catalog Number: PKSH032740

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

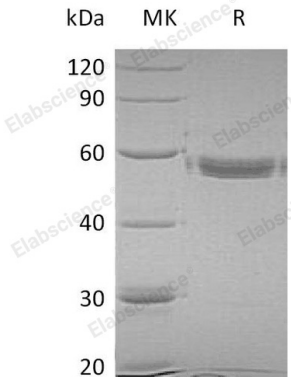
Description

Species	Human
Source	HEK293 Cells-derived Human MMP1 protein Phe20-Asn469, with an C-terminal His
Calculated MW	52.9 kDa
Observed MW	56 kDa
Accession	P03956
Bio-activity	Not validated for activity

Properties

Purity	> 95 % as determined by reducing SDS-PAGE.
Concentration	Subject to label value.
Endotoxin	< 1.0 EU per μg of the protein 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, 2mM $CaCl_2$, 1mM DTT, 0.05%Brij35, 10% Glycerol, pH 5.0.

Data



> 95 % as determined by reducing SDS-PAGE.

Background

Matrix Metalloproteinase-1 (MMP-1) 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-1 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.