abcam

Product datasheet

Recombinant Human MMP1 protein (denatured) ab177601

1 Image

Description

Product name	Recombinant Human MMP1 protein (denatured)
Purity	> 90 % SDS-PAGE. ab177601 was purified by using anion-exchange chromatography and gel-filtration chromatography with 20mM Tris pH 7.5, 2mM EDTA.
Expression system	Escherichia coli
Accession	P03956
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	MGSSHHHHHHSSGLVPRGSHMGSFVLTEGNPRWEQTHL TYRIENYTPDLP RADVDHAIEKAFQLWSNVTPLTFTKVSEGQADIMISFVRG DHRDNSPFDG PGGNLAHAFQPGPGIGGDAHFDEDERWTNNFREYNLHRV AAHELGHSLGL SHSTDIGALMYPSYTFSGDVQLAQDDIDGIQAIYGRSQNP VQPIGPQTPKACDSKLTFDAITTIRGEVMFFKDRFYMRTNP FYPEVELNF ISVFWPQLPNGLEAAYEFADRDEVRFFKGNKYWAVQGQN VLHGYPKDIYS SFGFPRTVKHIDAALSEENTGKTYFFVANKYWRYDEYKRS MDPGYPKMIA HDFPGIGHKVDAVFMKDGFFYFFHGTRQYKFDPKTKRILTL QKANSWFNC RKN
Predicted molecular weight	45 kDa including tags
Amino acids	100 to 469
Tags	His tag N-Terminus
Additional sequence information	Mature form (NP_002412.1).

Specifications

Our Abpromise guarantee covers the use of **ab177601** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	SDS-PAGE
Form	Liquid

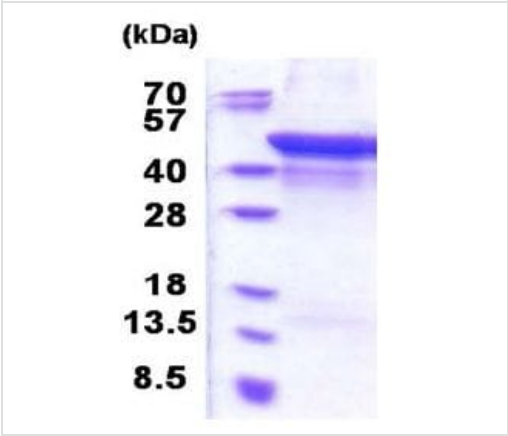
Preparation and Storage

Stability and Storage	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. pH: 8.00 Constituents: 0.32% Tris-HCl buffer, 10% Glycerol (glycerin, glycerine), 2.4% Urea

General Info

Function	Cleaves collagens of types I, II, and III at one site in the helical domain. Also cleaves collagens of types VII and X. In case of HIV infection, interacts and cleaves the secreted viral Tat protein, leading to a decrease in neuronal Tat's mediated neurotoxicity.
Sequence similarities	Belongs to the peptidase M10A family. Contains 4 hemopexin-like domains.
Domain	There are two distinct domains in this protein; the catalytic N-terminal, and the C-terminal which is involved in substrate specificity and in binding TIMP (tissue inhibitor of metalloproteinases). The conserved cysteine present in the cysteine-switch motif binds the catalytic zinc ion, thus inhibiting the enzyme. The dissociation of the cysteine from the zinc ion upon the activation-peptide release activates the enzyme.
Post-translational modifications	Undergoes autolytic cleavage to two major forms (22 kDa and 27 kDa). A minor form (25 kDa) is the glycosylated form of the 22 kDa form. The 27 kDa form has no activity while the 22/25 kDa form can act as activator for collagenase.
Cellular localization	Secreted > extracellular space > extracellular matrix.

Images



SDS-PAGE - Recombinant Human MMP1 protein (denatured) (ab177601)

15% SDS-PAGE analysis of ab177601 (3µg).

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