

Recombinant human MMP9 (mutated Q279R) protein

ab198459

2 Images

Description

Product name	Recombinant human MMP9 (mutated Q279R) protein
Biological activity	<p>Specific Activity: ≥ 2500 pmole/min/μg</p> <p>Activation: This is a proform enzyme and requires activation prior to testing activity. Dilute the enzyme to 100 ng/ml in a solution containing 50 mM HEPES, pH 7.4, 10 mM CaCl₂, 0.05% Brij-35, and 1 mM APMA (amino-phenyl mercuric acetate). Incubate at 37°C for 2 hours.</p> <p>Assay conditions: Reaction mixture with 10 μM MMP substrate. Incubate for 30 minutes at room temperature. Fluorescence intensity is measured at Ex328/Em393.</p>
Purity	> 90 % SDS-PAGE.
Expression system	HEK 293 cells
Accession	<u>P14780</u>
Protein length	Full length protein
Animal free	No
Nature	Recombinant
Species	Human
Sequence	<p>APRQRQSTLVLFPGDLRTNLTDRQLAEEYLYRYGYTRVAE MRGESKSLGP ALLLLQKQLSLPETGELDSATLKAMRTPRCGVPDLGRFQT FEGDLKWHHH NITYWIQNYSEDLPRAVIDDAFARAFALWSAVTPLTFTRVY SRDADIVIQ FGVAEHGDGYFPDGDGLLAHAFPPGPGIQGDAHFD ELWSLGKGVVVP TRFGNADGAACHFPFIFEGRSYSACTTDGRSDGLPWCST TANYDTDDRFG FCPSERLYTRDGNADGKPCQFPFIFQGQSYSACTTDGRS DGYRWCATTAN YDRDKLFGFCPTRADSTVMGGNSAGELCVFPFTFLGKEY STCTSEGRGDG RLWCATTSNFDSKKGWFCPDQGYSFLVAAHEFGHAL GLDHSSVPEALM YPMYRFTEGPPLHKDDVNGIRHLYGPRPEPEPRPPTTTTP</p>

QPTAPPTVCP
 TGPPTVHPSERPTAGPTGPPSAGPTGPPTAGPSTATTVP
 LSPVDDACNVN
 IFDAIAEIGNQLYLFKDGKYWRFSEGRGSRPQGPFLIADKW
 PALPRKLDS
 VFEERLSKKLFFFSGRQVWVYTASVLGPRRLDKLGLGA
 DVAQVTGALRS
 GRGKMLLFSGRRLWRFDVKAQMVDPRSASEVDRMFPG
 VPLDTHDVFQYRE
 KAYFCQDRFYWRVSSRSELNQVDQVGWVTDILQCPEDH
 HHHHHHHHH

Predicted molecular weight	78 kDa including tags
Amino acids	20 to 707
Modifications	mutated Q279R
Tags	His tag C-Terminus
Additional sequence information	This product is the full length protein without the propeptide. Genbank Accession: NM_004994.

Specifications

Our **Abpromise guarantee** covers the use of **ab198459** in the following tested applications.

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

Applications	Functional Studies SDS-PAGE
Form	Liquid

Preparation and Storage

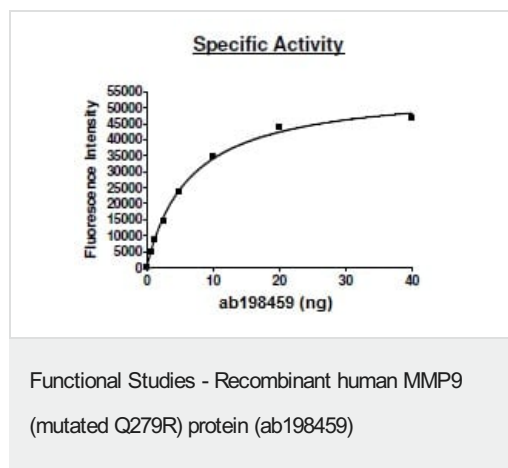
Stability and Storage	Shipped on Dry Ice. Store at -80°C. Avoid freeze / thaw cycle. pH: 8.00 Preservative: 1.36% Imidazole Constituents: 0.63% Tris HCl, 0.64% Sodium chloride, 0.02% Potassium chloride, 20% Glycerol (glycerin, glycerine) This product is an active protein and may elicit a biological response in vivo, handle with caution.
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General Info

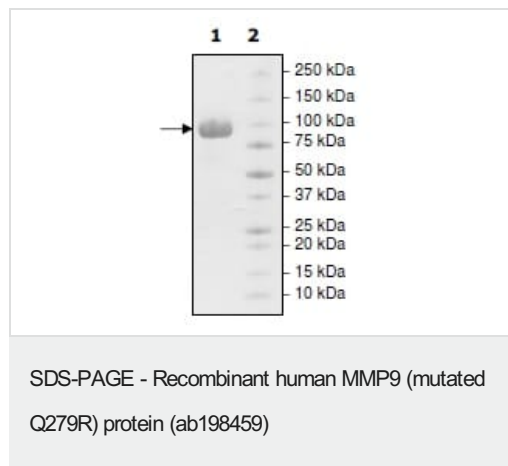
Function	May play an essential role in local proteolysis of the extracellular matrix and in leukocyte migration. Could play a role in bone osteoclastic resorption. Cleaves KiSS1 at a Gly-Leu bond. Cleaves type IV and type V collagen into large C-terminal three quarter fragments and shorter N-terminal one quarter fragments. Degrades fibronectin but not laminin or Pz-peptide.
Tissue specificity	Produced by normal alveolar macrophages and granulocytes.
Involvement in disease	Intervertebral disc disease Metaphyseal anadysplasia 2
Sequence similarities	Belongs to the peptidase M10A family. Contains 3 fibronectin type-II domains.

	Contains 4 hemopexin repeats.
Domain	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	Processing of the precursor yields different active forms of 64, 67 and 82 kDa. Sequentially processing by MMP3 yields the 82 kDa matrix metalloproteinase-9. N- and O-glycosylated.
Cellular localization	Secreted, extracellular space, extracellular matrix.

Images



Specific activity of activated ab198459.



4-20% SDS-PAGE analysis of ab198459 with Coomassie staining.

Lane 1: 6.3 µg ab198459

Lane 2: Protein marker

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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