

## Product datasheet

# Native human MMP9 protein (dimer) ab168863

★★★★★ 1 Abreviews 2 References 1 Image

### Overview

<b>Product name</b>	Native human MMP9 protein (dimer)
<b>Protein length</b>	Full length protein
<b>Description</b>	Native human MMP9 protein (Active)

### Description

<b>Nature</b>	Native
<b>Source</b>	Native
<b>Amino Acid Sequence</b>	
<b>Accession</b>	<a href="#">P14780</a>
<b>Species</b>	Human

### Sequence

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MSLWQPLVLV LVLGCCFAA PRQRQSTLVL
FPGDLRTNLT DRQLAEEYLYRYGYTRVAEM
RGESKSLGPA LLLLQKQLSL PETGELDSAT
LKAMRTPRCG VPDLGRFQTF EGDWKWHHHN
ITYWIQNYSE DLPRVIDDA FARAFALWSA
VTPLTFTRVY SRDADMIQF GVAEHGDGYP
FDGKDGLLAH AFPPGPGIQG DAHFDDDELW
SLGKGVVPT RFGNADGAAC HFPFIFEGRS
YSACTTDGRS DGLPWCSTTA NYDTDDRFGE
CPSERLYTQD GNADGKPCQF PFIFQGQSYS
ACTTDGRSDG YRWCATTANY DRDKLFGFCP
TRADSTMGG NSAGELCVFP FTFLGKEYST
CTSEGRGDGR LWCATTSNFD SDKKWGFCPD
QGYSFLVAA HEFGHALGLD HSSVPEALMY
PMYRFTEGPP LHKDDVNGIR HLYGPRPEPE
PRPPTTTTPQ PTAPPTVCPT GPPTVHPSER
PTAGPTGPPS AGPTGPPTAG PSTATTVPLS
PVDDACNVNI FDAIAEIGNQ LYLFDKGKYW
RFSEGRGSRP QGPFLIADKW PALPRKLDSV
FEERLSKKLF FFSGRQVWVY TGASVLGPRR
LDKLGADV AQVTGALRSG RGKMLLFSGR
RLWRFDVKAQ MVDPRSASEV DRMFPGVPLD
THDVFQYREK AYFCQDRFYW RVSSRSELNQ

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<b>Molecular weight</b>	220 kDa
<b>Amino acids</b>	1 to 707
<b>Additional sequence information</b>	Isolated from stimulated human neutrophil granulocytes (buffy coat). Disulfide-bridged MMP-9 homodimer.

## Specifications

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Our [Abpromise guarantee](#) covers the use of **ab168863** in the following tested applications.

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

<b>Biological activity</b>	<p>≥1'500mU/mg protein.</p> <p>One unit is defined as the amount of enzyme that hydrolyzes 1µmol Dnp-Pro-Gln-Gly-Ile-Ala-Gly-Gln-D-Arg-OH per min. at 37°C, pH 7.0.</p>
<b>Applications</b>	<p>Western blot</p> <p>Functional Studies</p> <p>SDS-PAGE</p>
<b>Purity</b>	<p>&gt;95% by SDS-PAGE .</p> <p>&gt;95% Western Blot.</p>
<b>Form</b>	Liquid

## Preparation and Storage

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<b>Stability and Storage</b>	<p>Shipped on Dry Ice. Upon delivery aliquot. Store at -80°C. Avoid freeze / thaw cycle.</p> <p>pH: 7.00</p> <p>Preservative: 0.05% Sodium azide</p> <p>Constituents: 0.05% Brij, 0.06% Calcium chloride, 0.00001% Zinc chloride, 0.79% Tris HCl, 1.16% Sodium chloride</p> <p>This product is an active protein and may elicit a biological response in vivo, handle with caution.</p>
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## General Info

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<b>Function</b>	<p>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.</p>
<b>Tissue specificity</b>	Produced by normal alveolar macrophages and granulocytes.
<b>Involvement in disease</b>	<p>Intervertebral disc disease</p> <p>Metaphyseal anadysplasia 2</p>
<b>Sequence similarities</b>	<p>Belongs to the peptidase M10A family.</p> <p>Contains 3 fibronectin type-II domains.</p> <p>Contains 4 hemopexin repeats.</p>
<b>Domain</b>	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.

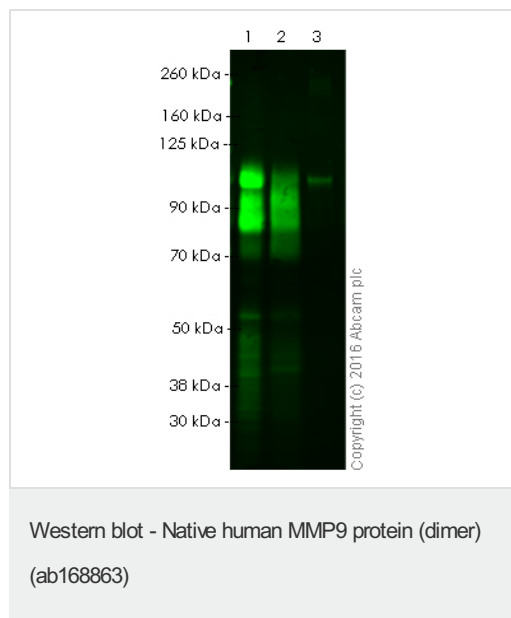
## Post-translational modifications

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



**All lanes :** Anti-MMP9 antibody [EP1254] (ab76003) at 5 µg/ml

**Lane 1 :** Native human MMP9 protein (dimer) (ab168863)

**Lane 2 :** Native human MMP9 protein (Proenzyme, monomer) (ab157344)

**Lane 3 :** Recombinant Mouse MMP9 protein (ab39309)

Lysates/proteins at 0.1 µg per lane.

### Secondary

**Lanes 1-2 :** Infrared labelled goat anti-rabbit (green) antibody at 1/20000 dilution

**Lane 3 :** Infrared labelled goat anti-rabbit (green) a at 1/20000 dilution

Performed under reducing conditions.

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

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