

Product datasheet

Native human MMP9 /TIMP1 protein (Complex)  
ab134451

1 Image

Description

<b>Product name</b>	Native human MMP9 /TIMP1 protein (Complex)
<b>Biological activity</b>	The specific activity of ab134451 after trypsin activation is >300 mU/mg. 1 U is the activity that hydrolyzes 1 μmol peptide (7-methoxycoumarin-4-yl) acetyl-Pro-Leu-Gly-Leu-(3-[2, 4-dinitrophenyl]-L- 2, 3-diamino-propionyl)-Ala-Arg-NH2 (Mca-Pro-Leu-Gly-Leu-Dpa-Ala-Arg) within 1 min.
<b>Purity</b>	> 95 % SDS-PAGE. ab134451 is >95% homogenous by electrophoresis and Western Blotting analysis.
<b>Expression system</b>	Native
<b>Protein length</b>	Full length protein
<b>Animal free</b>	No
<b>Nature</b>	Native
<b>Species</b>	Human

Specifications

Our [Abpromise guarantee](#) covers the use of **ab134451** in the following tested applications.

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

<b>Applications</b>	SDS-PAGE Functional Studies
<b>Form</b>	Liquid
<b>Additional notes</b>	Gelatinase B is inhibited by tissue inhibitors of matrix metalloproteinases (TIMP) and by chelators of divalent cations as EDTA or o-phenanthroline.

Preparation and Storage

<b>Stability and Storage</b>	Shipped on dry ice. Upon delivery aliquot and store at -80°C. Avoid freeze / thaw cycles. pH: 7.00 Preservative: 0.05% Sodium azide
------------------------------	---

Constituents: 0.05% Brij, 0.05% Calcium chloride, 0.00001% Zinc chloride, 0.79% Tris HCl, 1.17% Sodium chloride

This product is an active protein and may elicit a biological response in vivo, handle with caution.

## General Info

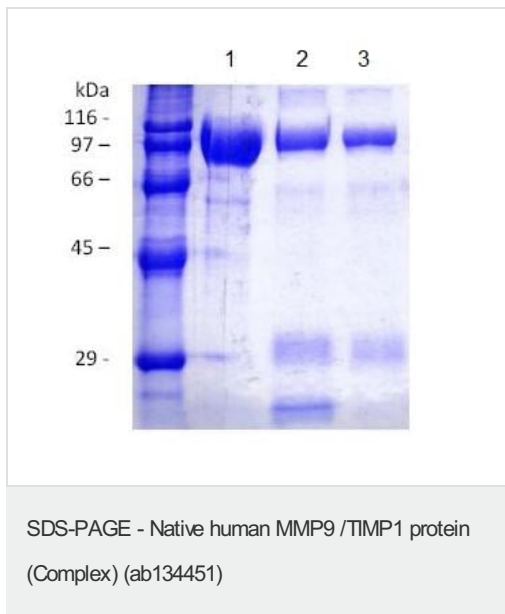
### Relevance

Human progelatinase B consists of 668 amino acids with a calculated Mr of 76240 Da. Due to N- and O-linked glycosylation the Mr in SDS-PAGE is about 92 kDa. Within the protein sequence the following structural domains can be distinguished: An N-terminal propeptide, which confers latency to the proenzyme, a Ca<sup>2+</sup> - and Zn<sup>2+</sup> -ions binding catalytic domain containing an insertion of three repeats homologous to type II repeats in the gelatin-binding region of fibronectin, and a C-terminal hemopexin-like domain. Catalytic and hemopexin domains are connected by a proline-rich sequence with homology to sequences in collagens. The gelatin binding region and the hemopexin domain confer specific macromolecular substrate binding to gelatinase B. The hemopexin domain of the latent enzyme binds TIMP-1. Gelatinase B from neutrophil granulocytes displays three bands on SDS-PAGE (reducing condition) at 92, 29 and 25 kDa. The 92 kDa form represents the monomer, the 29 kDa protein band represents TIMP 1 and the 25 kDa protein which belongs to the lipocalin family and displays homology with the α<sub>2</sub>- macroglobulin related protein from rats. These proteins are capable of forming complexes, including the binary MMP9/ TIMP1 complex, which behaves like the ternary MMP9/ Lipocalin/ TIMP1 complex that it is an inhibitor for active MMPs and, after activation, a gelatinase with a reduced activity.

### Cellular localization

Secreted

## Images



SDS-PAGE analysis under reducing condition:

Lane 1; MMP9

Lane 2; MMP9/ Lipocalin/ TIMP1

Lane 3; MMP9/ TIMP1

Gelatinase B from neutrophil granulocytes displays three bands on SDS-PAGE (reducing condition) at 92, 29 and 25 kDa. The 92 kDa form represents the monomer, the 29 kDa protein band represents TIMP 1 and the 25 kDa protein belongs to the lipocalin family.

These proteins are capable of forming complexes, including the binary MMP9/ TIMP1 complex.

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

**Our Abpromise to you: Quality guaranteed and expert technical support**

- Replacement or refund for products not performing as stated on the datasheet
- Valid for 12 months from date of delivery
- Response to your inquiry within 24 hours
  
- We provide support in Chinese, English, French, German, Japanese and Spanish
- Extensive multi-media technical resources to help you
- We investigate all quality concerns to ensure our products perform to the highest standards

If the product does not perform as described on this datasheet, we will offer a refund or replacement. For full details of the Abpromise, please visit <https://www.abcam.com/abpromise> or contact our technical team.

### **Terms and conditions**

---

- Guarantee only valid for products bought direct from Abcam or one of our authorized distributors