

Recombinant human MMP2 protein (Active) ab81550

★★★★★ [1 Abreviews](#) [7 References](#)

製品の詳細

製品名	Recombinant human MMP2 protein (Active)
生理活性	MMP2 activity was measured by its ability to cleave a chromogenic peptide MMP2 substrate at room temperature. At an MMP2 concentration of 2.5 µg/ml, 50% cleavage was achieved at an incubation time of approximately 25 minutes.
精製度	>= 98 % SDS-PAGE. >= 98% HPLC.
エンドトキシン・レベル	< 1.000 Eu/µg
発現系	Escherichia coli
アクセッション番号	<u>P08253</u>
タンパク質長	Full length protein
Animal free	No
由来	Recombinant
生物種	Human

配列

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MYNFFPRKPK WDKNQITYRI IGYTPDLDE
TVDDAFARAF QVWSDVTPLR FSRIHDGEAD
IMINFGWEH GDGYPFDGKD GLLAHAFAPG
TGVGGD SHFD DDELWTLGEG QVVRVKYGNA
DGEYCKFPFL FNGKEYNSCT DTGRSDGFLW
CSTTYNFEKD GKYGFCPEHA LFTMGGNAEG
QPCKFPFRFQ GTSYDSCTTE GRTDGYRWCG
TTEDYDRDCK YGFCPETAMS TVGGNSEGAP
CVFPFTFLGN KYESCTSAGR SDGKMW CATT
ANYDDDRKWG FCPDQGYSLF LVAAHEFGHA
MGLEHSQDPG ALMAPIYTYT KNFRLSQDDI
KGIQELYGAS PDIDLGTGPT PTLGPVTPEI
CKQDIVFDGI AQIRGEIFFF KDRFIWRTVT
PRDKPMGPLL VATFWPELPE KIDAVYEAPQ
EEKAVFFAGN EYWIYSASTL ERGYPKPLTS
LGLPPDVQRV DAAFNWSKNK KTYIFAGDKF
WRYNEVKKKM DPGFPKLIAD AWNAIPDNLD
AVVDLQGGGH SYFFKGAYYL KLENQSLKSV
KFGSIKSDWL GC

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予測される分子量	62 kDa
領域	109 to 660
配列の追加情報	ab81550 contains the entire catalytic N-terminal domain and the C-terminal domain (552 amino acids).

特性

Our **Abpromise guarantee** covers the use of **ab81550** in the following tested applications.

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

アプリケーション	HPLC
	SDS-PAGE

製品の状態	Lyophilized
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前処理および保存

保存方法および安定性 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.

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

再構成 Reconstitute in water to a concentration of 0.1 mg/ml. Please note that if you receive this product in liquid form, it has already been reconstituted as described and no further reconstitution is necessary.

関連情報

機能 Ubiquitous metalloproteinase that is involved in diverse functions such as remodeling of the vasculature, angiogenesis, tissue repair, tumor invasion, inflammation, and atherosclerotic plaque rupture. As well as degrading extracellular matrix proteins, can also act on several nonmatrix proteins such as big endothelial 1 and beta-type CGRP promoting vasoconstriction. Also cleaves KISS at a Gly-

-Leu bond. Appears to have a role in myocardial cell death pathways. Contributes to myocardial oxidative stress by regulating the activity of GSK3beta. Cleaves GSK3beta in vitro.

PEX, the C-terminal non-catalytic fragment of MMP2, possesses anti-angiogenic and anti-tumor properties and inhibits cell migration and cell adhesion to FGF2 and vitronectin. Ligand for integrin/vbeta3 on the surface of blood vessels.

組織特異性 Produced by normal skin fibroblasts. PEX is expressed in a number of tumors including gliomas, breast and prostate.

関連疾患 Defects in MMP2 are the cause of Torg-Winchester syndrome (TWS) [MIM:259600]; also known as multicentric osteolysis nodulosis and arthropathy (MONA). TWS is an autosomal recessive osteolysis syndrome. It is severe with generalized osteolysis and osteopenia. Subcutaneous nodules are usually absent. Torg-Winchester syndrome has been associated with a number of additional features including coarse face, corneal opacities, patches of thickened, hyperpigmented skin, hypertrichosis and gum hypertrophy. However, these features are not always present and have occasionally been observed in other osteolysis syndromes.

配列類似性 Belongs to the peptidase M10A family.
Contains 3 fibronectin type-II domains.
Contains 4 hemopexin-like domains.

ドメイン	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.
翻訳後修飾	Phosphorylation on multiple sites modulates enzymatic activity. Phosphorylated by PKC in vitro. The propeptide is processed by MMP14 (MT-MMP1) and MMP16 (MT-MMP3). Autocatalytic cleavage in the C-terminal produces the anti-angiogenic peptide, PEX. This processing appears to be facilitated by binding integrin α v/ β 3.
細胞内局在	Secreted > extracellular space > extracellular matrix. Membrane. Nucleus. Colocalizes with integrin α v/ β 3 at the membrane surface in angiogenic blood vessels and melanomas. Found in mitochondria, along microfibrils, and in nuclei of cardiomyocytes.

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