

Recombinant human MMP2 protein (Active) ab81550

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描述	
产品名称	重组人MMP2蛋白(Active)
生物活性	<p>MMP2 activity was measured by its ability to cleave a chromogenic peptide MMP2 substrate at room temperature.</p> <p>At an MMP2 concentration of 2.5 µg/ml, 50% cleavage was achieved at an incubation time of approximately 25 minutes.</p>
纯度	<p>>= 98 % SDS-PAGE.</p> <p>>= 98% HPLC.</p>
内毒素水平	< 1.000 Eu/µg
表达系统	Escherichia coli
Accession	P08253
蛋白长度	Full length protein
无动物成分	No
性质	Recombinant
种属	Human
序列	<div>MYNFFPRKPK WDKNQITYRI IGYTPDLDE TVDDAFARAF QVWSDVTPLR FSRIHDGEAD IMINFGRWEH GDGYPFDGKD GLLAHAFAPG TGVGGDSHFD DDELWTLGEG QVVRVKYGNA DGEYCKFPFL FNGKEYNSCT DTGRSDGFLW CSTTYNFEKD GKYGFPCHEA LFTMGGNAEG QPCKFPFRFQ GTSYDSCTTE GRTDGYRWCG TTEDYDRDKK YGFCPETAMS TVGGNSEGAP CVFPFTFLGN KYESCTSAGR SDGKMWCATT 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 KFGSIKDWL GC</div>

预测分子量	62 kDa
氨基酸	109 to 660
额外的序列信息	ab81550 contains the entire catalytic N-terminal domain and the C-terminal domain (552 amino acids).
技术指标	
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.	
应用	HPLC SDS-PAGE
形式	Lyophilized
制备和贮存	
稳定性和存储	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.
复溶	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.
常规信息	
功能	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 α 5 β 3 on the surface of blood vessels.
组织特异性	Produced by normal skin fibroblasts. PEX is expressed in a number of tumors including gliomas, breast and prostate.
疾病相关	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.
序列相似性	Belongs to the peptidase M10A family. Contains 3 fibronectin type-II domains. Contains 4 hemopexin-like domains.

结构域	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.
翻译后修饰	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.
细胞定位	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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