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Documents



FDS



COO/COA



Fiche des
caractéristiques

SRP3117 ▶ Sigma-Aldrich®

MMP-1 human

★★★★★ (0)

recombinant, expressed in *E. coli*, ≥98% (SDS-PAGE), ≥98% (HPLC), suitable for cell culture

Synonyme(s):

Fibroblast collagenase

NACRES:

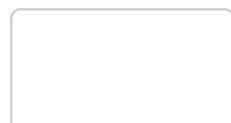
NA.32

Référence	Conditionnement	Disponibilité	Prix	Quantité
SRP3117-10UG	10 µG	Généralement expédié sous 2 semaines.	323,00 €	- + i

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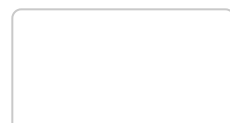
PRODUITS RECOMMANDÉS



Sigma-Aldrich

SRP6269

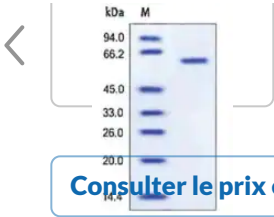
MMP-1 human



Sigma-Aldrich

SRP7783

MMP-3 human



recombinant, expressed in HEK 293 cells, ≥95% (SDS-PAGE)



recombinant, expressed in *E. coli*, ≥95% (SDS-PAGE), ≥95% (HPLC)

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PROPRIÉTÉS

Source biologique	human
Recombinant	expressed in <i>E. coli</i>
Essai/Dosage	≥98% (HPLC) ≥98% (SDS-PAGE)
Forme	lyophilized
Poids mol.	42.7 kDa
Conditionnement	pkg of 10 µg
technique(s)	cell culture mammalian: suitable
Impuretés	<0.1 EU/µg endotoxin, tested
Couleur	white to off-white
N° d'accèsion UniProt	P03956

Expériences

wet ice

Temp. de stockage

-20°C

Gene Information

human ... [MMP1\(4312\)](#)

DESCRIPTION

Description générale

Matrix metalloproteinases (MMPs) are a family of endoproteases that require zinc and calcium for expressing catalytic activity. MMP-1 is expressed in various cells, including fibroblasts, keratinocytes, chondrocytes, monocytes and macrophages, hepatocytes and many tumor cells. The gene is mapped to human chromosome 11q22. Recombinant human MMP-1 is a 42.7kDa protein containing the entire catalytic N-terminal domain and the C-terminal domain which is involved in substrate specificity and in binding TIMP-1 (tissue inhibitor of metalloproteinases 1).

Application

MMP-1 (matrix metalloproteinase 1) human has been used to study effect of NF (nuclear factor)κB-mediated expression of MMP-1 in breast cancer spheroids.

Actions biochimiques/physiologiques

Matrix metalloproteinases (MMPs) enzymes play a central role in the maintenance and remodeling of the extracellular matrix. Elevated expression of their activity, caused either by up-regulation of their expression or down-regulation of their cognate inhibitors, has been implicated in various degenerative disorders, including arthritis, cardiovascular disease, skeletal growth-plate disorders, and cancer metastasis. MMP-1 is a secreted collagenase with specificity toward Type I, II, III, VII, and X collagens, aggrecan, serpins, and α2-macroglobulin. It is overexpressed in lumbar intervertebral disc degeneration (IDD). It might also be

associated with osteoarthritis. MMP-1 is linked with Juvenile idiopathic arthritis. Genetic variations in MMP-1 can affect the susceptibility and severity of this disease.

Séquence

MFVLTEGNPR WEQTHLYRI ENYTPDLPR DVDHAIEKAF QLWSNVTPLT FTKVSEGGAD IMISFVRGDH RDNSPFDGPG
GNLAHAFQPG PGIGGDAHFD EDERWTNNFR EYNLHRVA AH ELGHSGLSH STDIGALMYP SYTFSGDVQL AQDDIDGIQA
IYGRSQNPVQ PIGPQTPKAC DSKLTFDAIT TIRGEVMFFK DRFYMRTNPF YPEVELNFIS VFWPQLPNGL EAAYEFADRD
EVRFFKGNKY WAVQGQNV LH GYPKDISSF GFRPTVKHID AALSEENTGK TYFFVANKYW RYDEYKRSMD PGYPKMIAHD
FPGIGHKVDA VFMKDGFFYF FHGTRQYKFD PKTKRILTLQ KANSWFNCRK N

Forme physique

Lyophilized from 20 mM TRIS, pH 9.0 + 0.1 mM Calcium Chloride + 100 mM Arginine.

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.5-1.0 mg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 week. For extended storage, it is recommended to further dilute in a buffer containing a carrier protein (example 0.1% BSA) and store in working aliquots at -20°C to -80°C.

INFORMATIONS SUR LA SÉCURITÉ

Code de la classe de stockage

11 - Combustible Solids

WGK

WGK 3

Flash Point(F)

Not applicable

Point d'éclair C

Not applicable

DOCUMENTATION

Certificat d'analyse

Saisir un numéro de lot pour rechercher un certificat d'analyse (COA).

Numéro de lot

e.g. 023J5431

Comment saisir un numéro de lot (COA)

Rechercher

Certificat d'origine

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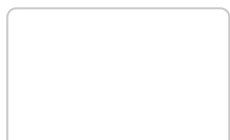
Numéro de lot

e.g. 023J5431

Comment saisir un numéro de lot (COO)

Rechercher

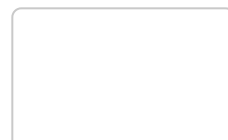
LES CLIENTS ONT ÉGALEMENT CONSULTÉ



Sigma-Aldrich

RAB0361

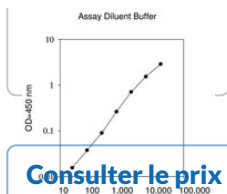
Human MMP-1 ELISA Kit



Sigma-Aldrich

530006

Prion Protein, His•Tag®, Human, Recombinant,



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for serum, plasma, cell culture supernatant and urine



E. coli

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ARTICLES REVUS PAR DES PAIRS

Regulation of matrix metalloproteinase expression in tumor invasion.

Westermarck J and Kahari VM
Faseb Journal, 13, 781-792 (1999)

Haplotypes in matrix metalloproteinase gene cluster on chromosome 11q22 contribute to the risk of lung cancer development and progression.

Clinical Cancer Research, 12, 7009-7017 (2006)

NF-κB contributes to MMP1 expression in breast cancer spheroids causing paracrine PAR1 activation and disintegrations in the lymph endothelial barrier in vitro.

Chi Huu Nguyen et al.
Oncotarget, 6(36), 39262-39275 (2015-10-30)

RELA, RELB, CREL, NFKB1 and NFKB2, and the upstream regulators NEMO and NIK were knocked-down in lymph endothelial cells (LECs) and in MDA-MB231 breast cancer spheroids to study the contribution of NF-κB in vascular barrier breaching. Suppression of RELA, NFKB1

MMP-1: the elder of the family.

Annie Pardo et al.
The international journal of biochemistry & cell biology, 37(2), 283-288 (2004-10-12)

The matrix metalloproteinases (MMPs) are a family of zinc-containing endopeptidases that play a key role in both physiological and pathological tissue remodeling. Human fibroblast collagenase (MMP-1) was the first vertebrate collagenase purified as a protein and cloned as a cDNA

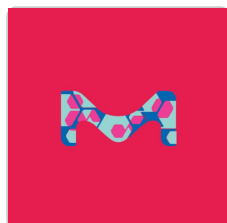
Expression profiles of MMP-1 and TIMP-1 in lumbar intervertebral disc degeneration.

Deng B

Genetics and molecular research : GMR, 14, 19080-19086 (2015)

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PRODUITS CONSULTÉS RÉCEMMENT



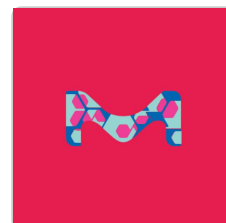
Sigma-Aldrich

SRP3110

M-CSF human

Animal-component free, recombinant, expressed in *E. coli*, ≥98% (SDS-PAGE), ≥98% (HPLC), suitable for cell...

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Sigma-Aldrich

SRP3109

MCP-1/MCAF human

Animal-component free, recombinant, expressed in *E. coli*, ≥98% (SDS-PAGE), ≥98% (HPLC), suitable for cell...

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Évaluations



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SERVICE TECHNIQUE

Notre équipe de scientifiques dispose d'une expérience dans tous les secteurs de la recherche, notamment en sciences de la vie, science des matériaux, synthèse chimique, chromatographie, analyse et dans de nombreux autres domaines..

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