MMP-2 Human E. coli

Product Data Sheet

Type: Recombinant
Source: E. coli
Species: Human
Other names: Matrix metalloproteinase-2; Gelatinase A, TBE-1

Cat. No.:

RBG10232002	(2 µg)
RBG10232010	(10 µg)
RBG10232100	(100 µg)

Description

Matrix metalloproteinases (MMPs) are a family of endoproteases that require zinc and calcium for expressing catalytic activity. These 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-2 is a secreted collagenase with specificity toward Type IV, V, VII, and X collagens. Recombinant Human MMP-2 is a 62.0 kDa protein containing the entire catalytic N-terminal domain and the C-terminal domain (552 amino acids).

Research topic

Bone and cartilage metabolism, Cardiovascular disease, Coronary artery disease, Oncology

Amino Acid Sequence

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MYNFFPRKPK WDKNQITYRI IGYTPDLDPE TVDDAFARAF QVWSDVTPLR FSRIHDGEAD IMINFGRWEH GDGYPFDGKD
GLLAHAFAPG TGVGGDSHFD DDELWTLGEG QVVRVKYGNA DGEYCKFPFL FNGKEYNSCT DTGRSDGFLW CSTTYNFEKD
GKYGFCPHEA 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 KFGSIKSDWL GC
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Source

E. coli

Purity

98%

Biological Activity

MMP-2 activity was measured by its ability to cleave a chromogenic peptide MMP-2 substrate at room temperature. At an MMP-2 concentration of 2.5 µg/ml, 50% cleavage was achieved at an incubation time of approximately 25 minutes.

Endotoxin

Endotoxin level is <0.1 ng/µg of protein (<1EU/µg).

Reconstitution

Centrifuge the vial prior to opening. Reconstitute in water to a concentration of 0.5-1.0 mg/ml. Do not vortex. 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.

Storage, Stability/Shelf Life

-20°C

HEADQUARTERS: BioVendor Laboratorní medicína, a.s.	Karasek 1767/1	621 00 Brno CZECH REPUBLIC	Phone: +420-549-124-185 Fax: +420-549-211-460	E-mail: Web:	info@biovendor.com sales@biovendor.com www.biovendor.com
AUSTRIA: BioVendor GesmbH	Nußdorfer Straße 20/10	1090 Vienna AUSTRIA	Phone: +43-1-89090-25 Fax: +43-1-89090-2515	E-mail:	infoAustria@biovendor.com
GERMANY, SWITZERLAND: BioVendor GmbH	Otto-Hahn-Straße 16	34123 Kassel GERMANY	Phone: +49-6221-433-9100 Fax: +49-6221-433-9111	E-mail:	infoEU@biovendor.com
USA, CANADA AND MEXICO: BioVendor LLC	128 Bingham Rd. Suite 1300	Asheville, NC 28806 USA	Phone: +1-828-575-9250 +1-800-404-7807 Fax: +1-828-575-9251	E-mail:	infoUSA@biovendor.com