

Matrix Metalloproteinase-2 Active Protein | MMP 2 active protein

Recombinant Human Matrix Metalloproteinase-2, HEK

CATALOG #
AAA39014

PRODUCT SYNONYMS

Matrix Metalloproteinase-2; Recombinant Human Matrix Metalloproteinase-2; HEK; MMP-2 Human; Matrix Metalloproteinase-2 Human Recombinant; 72 kDa type IV collagenase; 72 kDa gelatinase; Gelatinase A; Matrix metalloproteinase-2; MMP-2; TBE-1; MMP2; CLG4A; CLG4; MONA; MMP-II; MMP 2 HEK; MMP 2 active protein

PRODUCT SPECIFICATIONS

Purity/Purification	Greater than 95% as determined by SDS-PAGE.
Form/Format	The MMP-2 (0.83 mg/mL) is supplied as a 0.2 um filtered solution in 20mM Tris-HCl, 150mM NaCl and 0.05% Brij 35, pH 7.4.
Concentration	0.83mg/ml (varies by lot)
Sequence Length	610
Source	HEK293 Cells
Physical Appearance	Sterile Filtered colorless solution.
Biological Activity	The activity was measured by its ability to cleave fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH₂ (RND)., The specific activity is > 1,000 pmoles/min/ ug. Recombinant Human MMP-2 protein pro form needs to be activated with p-aminophenylmercuric acetate (APMA). Activation Protocol: 1. Dilute MMP2 to 100 ug/ml in the Assay Buffer: 50mM Tris, 10mM CaCl₂, 150mM NaCl, 0.05% (w/v) and Brij 35, pH 7.5. 2. Activate MMP2 by adding APMA to a final concentration of 1mM and 100mM stock in DMSO. 3. Incubate at 37°C for 1 hour.
Preparation and Storage	Store at 4°C if entire vial will be used within 2-4 weeks. Store frozen at -20°C for longer periods of time. Avoid multiple freeze-thaw cycles.

ADDITIONAL INFORMATION

Related Product Information for MMP 2 active protein	Description: MMP-2 Human Recombinant produced in HEK293 cells is a proform of the Human MMP-2 (Ala30-Cys660) and fused with a ployhistide tag at the C-terminus, having an Mw of 71kDa. MMP-2 is purified by proprietary chromatographic techniques. Introduction: Matrix metalloproteinase-2 (MMP-2) is a type IV collagenase, which is involved in endometrial menstrual breakdown, regulation of vascularization and the inflammatory response. MMP-2 contains a number of distinct domains: a prodomain that is cleaved upon activation; a catalytic domain containing the zinc binding site; a fibronectin like domain believed to have a role in substrate targeting; and a carboxyl terminal (hemopexin like) domain containing 2 N-linked glycosylation. The MMP-2 can degrade an extensive array of substrates including type IV, V, VII and X collagens as well as gelatin type I. In addition, MMP-2 interacts with THBS2, TIMP2, Thrombospondin 1, CCL7 and TIMP4. MMP-2 autocatalytic cleavage in the C-terminal generates the anti-angiogenic peptide, PEX. This process seems to be made possible by binding integrinα5β3. Defects in the MMP-2 are the cause of Torg-Winchester syndrome (TWS), aka multicentric osteolysis nodulosis and arthropathy (MONA).
Product Categories/Family for MMP 2 active protein	Enzymes; Matrix Metalloproteinase

NCBI AND UNIPROT INFORMATION

NCBI GI #	189217853
NCBI GeneID	4313
NCBI Accession #	NP_001121363.1
NCBI GenBank Nucleotide #	NM_001127891.2
UniProt Accession #	P08253; Q9UCJ8; B2R6U1; B4DWH3; E9PE45
Molecular Weight	68,831 Da
NCBI Official Full Name	72 kDa type IV collagenase isoform 2
NCBI Official Synonym Full Names	matrix metallopeptidase 2
NCBI Official Symbol	MMP2
NCBI Official Synonym Symbols	CLG4; MONA; CLG4A; MMP-2; TBE-1; MMP-II
NCBI Protein Information	72 kDa type IV collagenase; collagenase type IV-A; matrix metallopeptidase 2 (gelatinase A, 72kDa gelatinase, 72kDa type IV collagenase); matrix metalloproteinase-2; matrix metalloproteinase-II; neutrophil gelatinase
UniProt Protein Name	72 kDa type IV collagenase
UniProt Gene Name	MMP2
UniProt Synonym Gene Names	CLG4A; MMP-2
UniProt Entry Name	MMP2_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com
Online datasheet: <https://stage.aaabiotech.com/mmp-2-active-protein/matrix-metalloproteinase-2/39014>