

Active Recombinant Human MMP13, His-tagged

Cat. No. MMP13-810H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human MMP13 is expressed in sf9 cell. The protein contains in addition to the 452 amino acids of full-length procollagenase-3 a C-terminal His-tag. The resulting Mr is 52.520 Da. Due to Nlinked glycosylation the proenzyme appears as a band of about 60.000 Da in SDS-PAGE.
Species	Human
Source	Sf9 Cells
Description	Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes, such as arthritis and metastasis. Most MMP"s are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. However, the protein encoded by this gene is a member of the membrane-type MMP (MT-MMP) subfamily; each member of this subfamily contains a potential transmembrane domain suggesting that these proteins are expressed at the cell surface rather than secreted. This protein activates MMP2 protein, and this activity may be involved in tumor invasion.
Purity	Recombinant procollagenase-3 appears as a single protein band of about 60.000 Da in SDS-PAGE (> 95 % of total protein). Due to autoproteolytic activity minor bands of activated collagenase-3 may be visible in the enzyme preparation.

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Activity	The specific activity of collagenase-3 is 200 mU/mg. 1 U is the activity that hydrolyzes 1 mmol peptide (7-methoxycoumarin-4-yl) acetyl-Pro- Leu- Gly -Leu-(3-[2, 4-dinitro phenyl]-L-2, -diamino-propionyl)-Ala-Arg-NH ₂ (Mca- Pro-Leu-Gly-Leu -Dpa-Ala-Arg) within 1 min under the assay conditions described below.
Application	Recombinant procollagenase-3 can serve as antigen standard in immunochemical analyses. The active enzyme may be used to study the degradation of extracellular matrix proteins, to screen inhibitors of matrix metalloproteinases and to characterize inhibitor actions.
Storage	Recombinant procollagenase-3 is stable until the expiry date given on the label if stored at -70°C. The proenzyme can be kept at -20°C for several weeks. Repeated freezing and thawing should be avoided.
MMP13; matrix metalloproteinase 13; CLG3, MANDP1; MMP-13; collagenase 3; matrix metalloproteinase 13 (collagenase 3) ; EC 3.4.24.-	
4322	
NM_002427	
NP_002418	
600108	
P45452	

11q22**calcium ion binding;
metalloendopeptidase
activity; peptidase
activity; zinc ion
binding****Download Datasheet:** Tel: 1-631-559-9269 1-516-512-3133 Email: info@creative-biomart.com  Fax: 1-631-938-8127 45-1 Ramsey Road, Shirley, NY 11967, USA