Creative Enzymes®

Matrix Metalloproteinase-13 (His•Tag) from Human, Recombinant

Cat. No. NATE-0859

Lot. No. (See product label)

Introduction

Description	Matrix metalloproteinases are members of a unique family of proteolytic enzymes that have a zinc ion at their active sites and can degrade collagens, elastin and other components of the extracellular matrix (ECM). These enzymes are present in normal healthy individuals and have been shown to have an important role in processes such as wound healing, pregnancy, and bone resorption. However, overexpression and activation of MMPs have been linked with a range of pathological processes and disease states involved in the breakdown and remodeling of the ECM. Such diseases include tumor invasion and metastasis, rheumatoid arthritis, periodontal disease and vascular processes such as angiogenesis, intimal hyperplasia, atherosclerosis and aneurysms. Recently, MMPs have been linked to neurodegenerative diseases such as Alzheimer's, and amyotrophic lateral sclerosis (ALS). Natural inhibitors of MMPs, tissue inhibitor of matrix metalloproteinases (TIMPs) exist and synthetic inhibitors have been developed which offer hope of new treatment options for these diseases.
Synonyms	Collagenase-3; Matrix metallopeptidase 13; MMP13; CLG3; MANDP1; MMP-13

Product Information

Species	Human
Source	S. frugiperda
Form	Liquid
Molecular Weight	60 kDa
Purity	>90% by SDS-PAGE
Activity	>50 mU/mg protein
Buffer	In 150 mM NaCl, 50 mM Tris-HCl, 5 mM $CaCl_2$, pH 7.5.
Unit Definition	One unit is defined as the amount of APMA-activated enzyme that will hydrolyze 1.0 μmol MCA-Pro-Leu-Gly-Leu-Dpa-Ala-Arg-NH_2 per min at 37°C, pH 7.5.

Storage and Shipping Information

Storage	< -70°C; Avoid freeze/thaw