

Synonym

MMP2,CLG4,CLG4A,MMP-II,MONA,TBE-1

Source

Mouse MMP-2 (30-460), His Tag (MM2-M52H9) is expressed from human 293 cells (HEK293). It contains AA Ala 30 - Thr 460 (Accession # [P33434-1](#)). It needs to be activated by agents such as APMA in vitro to have hydrolytic activity.

Predicted N-terminus: Ala 30

Molecular Characterization

MMP-2(Ala 30 - Thr 460)
P33434-1 Poly-his

This protein carries a polyhistidine tag at the C-terminus.

The protein has a calculated MW of 50.0 kDa. The protein migrates as 50-55 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

Endotoxin

Less than 1.0 EU per µg by the LAL method.

Purity

>85% as determined by SDS-PAGE.

Formulation

Supplied as 0.2 µm filtered solution in 50 mM Tris, 150 mM NaCl, 20% glycerol, pH7.5 with trehalose as protectant.

Contact us for customized product form or formulation.

Shipping

This product is supplied and shipped with dry ice, please inquire the shipping cost.

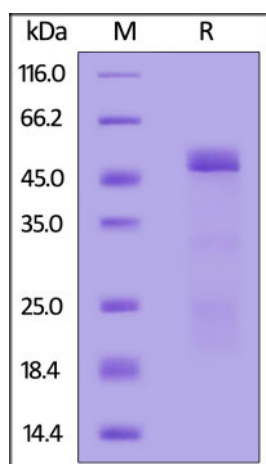
Storage

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

- The product MUST be stored at -70°C or lower upon receipt;
- -70°C for 6 months under sterile conditions.

SDS-PAGE



Mouse MMP-2 (30-460), His Tag on SDS-PAGE under reducing (R) condition.

The gel was stained with Coomassie Blue. The purity of the protein is greater than 85%.

Bioactivity

Measured by its ability to cleave the fluorogenic peptide substrate Mca-PLGL-Dpa-AR-NH₂. The specific activity is >1,500 pmol/min/µg (QC tested).

Background

Matrix metalloproteinase-2 (MMP-2) is also known as 72 kDa type IV collagenase, 72 kDa gelatinase, Gelatinase A and CLG4A, which belongs to the peptidase M10A family. MMP-2 / CLG4A contains 3 fibronectin type-II domains and 4 hemopexin-like domains. MMP-2 is produced by normal skin fibroblasts. MMP-2 cleaves the collagen-like sequence Pro-Gln-Gly-|-Ile-Ala-Gly-Gln. MMP2 involved in diverse functions such as remodeling of the vasculature, angiogenesis, tissue

Mouse MMP-2 (30-460) Protein, His Tag (active enzyme)

Catalog # MM2-M52H9

repair, tumor invasion, inflammation, and atherosclerotic plaque rupture. As well as degrading extracellular matrix proteins, can also act on several nonmatrix proteins such as big endothelial 1 and beta-type CGRP promoting vasoconstriction. Also cleaves KISS at a Gly-|-Leu bond. Appears to have a role in myocardial cell death pathways. Contributes to myocardial oxidative stress by regulating the activity of GSK3beta. Cleaves GSK3beta in vitro. PEX, the C-terminal non-catalytic fragment of MMP2, possesses anti-angiogenic and anti-tumor properties and inhibits cell migration and cell adhesion to FGF2 and vitronectin.

Clinical and Translational Updates

Please contact us via TechSupport@acrobiosystems.com if you have any question on this product.