Catalog # MM3-H52H3



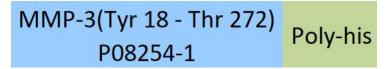
### Synonym

CHDS6

### Source

Human MMP-3, His Tag(MM3-H52H3) is expressed from human 293 cells (HEK293). It contains AA Tyr 18 - Thr 272 (Accession # <u>P08254-1</u>). Predicted N-terminus: Tyr 18

### **Molecular Characterization**



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

The protein has a calculated MW of 30.7 kDa. The protein migrates as 32 kDa under reducing (R) condition (SDS-PAGE) due to glycosylation.

### Endotoxin

Less than 1.0 EU per  $\mu g$  by the LAL method.

### Purity

>95% as determined by SDS-PAGE.

### Formulation

Supplied as 0.2  $\mu$ m filtered solution in 25 mM MES, 150 mM NaCl, pH6.0 with glycerol 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.* 

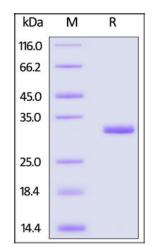
### Storage

Please avoid repeated freeze-thaw cycles.

This product is stable after storage at:

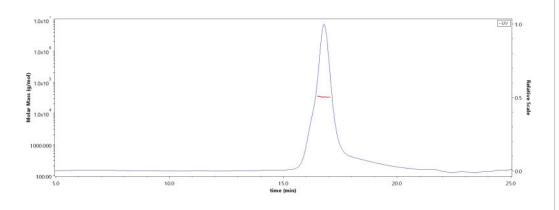
- The product MUST be stored at -20°C or lower upon receipt;
- -20°C for 3 months under sterile conditions.

# **SDS-PAGE**



Human MMP-3, His Tag on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%.

# SEC-MALS



The purity of Human MMP-3, His Tag (Cat. No. MM3-H52H3) is more than 85% and the molecular weight of this protein is around 30-43 kDa verified by SEC-MALS. <u>Report</u>

# **Bioactivity-ELISA**

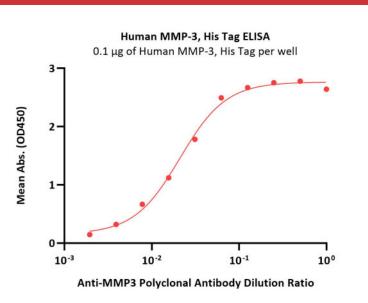


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# Human MMP-3 Protein, His Tag (active enzyme, MALS verified)

Catalog # MM3-H52H3



Immobilized Human MMP-3, His Tag (Cat. No. MM3-H52H3) at 1  $\mu$ g/mL (100  $\mu$ L/well) can bind various dilution ratio of Anti-MMP3 Polyclonal Antibody (Routinely tested).

### Bioactivity

Measured by its ability to cleave the fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK(Dnp)-NH2 . The specific activity is >422 pmol/min/µg (QC tested).

### Background

Matrix metalloproteinase 3 (MMP-3), also known as stromelysin 1 and progelatinase, is encoded by the MMP3 gene. The expression of MMP3 is mainly regulated at the transcriptional level, where gene promoters respond to a variety of stimuli including growth factors, cytokines, carcinogens and proto-oncogene products. MMP-3 degrade II, III, IV, IX and X collagen, proteoglycan, fibronectin, laminin, and elastin. In addition, MMP-3 can also activate other MMPs such as MMP-1, MMP-7 and MMP-9, so MMP-3 plays a key role in connective tissue remodeling. This enzyme is involved in wound repair, atherosclerotic progression, and tumor initiation. Studies of MMP-3 wild type and gene knockout in mice have shown that MMP-3 increases the permeability of the blood-brain barrier after traumatic injury. Nuclear MMP-3 works as a transcription factor and protease.

### **Clinical and Translational Updates**





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