Datasheet for ABIN7196958

MMP 9 Protein (His tag)

1 Image

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Overview

Quantity:	50 µg
Target:	MMP 9 (MMP9)
Origin:	Rat
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This MMP 9 protein is labelled with His tag.

Product Details

Purpose:	Recombinant Rat MMP-9 Protein (His Tag)(Active)
Sequence:	Met 1-Pro 708
Characteristics:	A DNA sequence encoding the rat MMP9 (EDL96479.1) (Met 1-Pro 708) was expressed, fused with a polyhistidine tag at the C-terminus.
Purity:	> 95 % as determined by SDS-PAGE
Endotoxin Level:	< 1.0 EU per µg of the protein as determined by the LAL method
Biological Activity Comment:	Measured by its ability to cleave a fluorogenic peptide substrate Mca-PLGL-Dpa-AR-NH2 (AnaSpec, Catalog # 27076). The specific activity is >1000 pmoles/min/µg.(Activation description: The proenzyme needs to be activated by APMA for an activated form)

Target Details

Target:	MMP 9 (MMP9)

Target Details

Alternative Name:	MMP-9 (MMP9 Products)
Background:	Background: Matrix metalloproteinases (MMPs) are neutral proteinases that are involved in the breakdown and remodeling of the extracellular matrix (ECM) under a variety of physiological and pathological conditions, such as morphogenesis, differentiation, angiogenesis and tissue remodeling, as well as pathological processes including inflammation, arthritis, cardiovascular diseases, pulmonary diseases and tumor invasion. MMP9, also known as 92- kDa gelatinase B/type IV collagenase, is secreted from neutrophils, macrophages, and a number of transformed cells, and is the most complex family member in terms of domain structure and regulation of its activity. It plays an important role in tissue remodelling in normal and pathological inflammatory processes. MMP-9 is a major secretion product of macrophages and a component of cytoplasmic granules of neutrophils, and is particularly important in the pathogenesis of inflammatory, infectious, and neoplastic diseases in many organs including the lung. This enzyme is also secreted by lymphocytes and stromal cells upon stimulation by inflammatory cytokines, or upon delivery of bi-directional activation signals following integrin-mediated cell-cell or cell-extracellular matrix (ECM) contacts. Since the integrity of the tissue architecture is closely dependent of the delicate balance between MMPs and their inhibitors, excessive production of MMP-9 is linked to tissue damage and degenerative inflammatory disorders. As a consequence, regulation of gene transcription and tissue-specific expression of MMP-9 in normal and diseased states are being actively investigated to pave the way for new therapeutic targets. In addition, the dramatic overexpression of MMP-9 in cancer and various inflammatory conditions clearly points to the molecular mechanisms controlling its expression as a potential target for eventual rational therapeutic intervention. Synonym: Mmp9
Molecular Weight:	77.8 kDa
Pathways:	Cellular Response to Molecule of Bacterial Origin, Positive Regulation of Immune Effector Process, CXCR4-mediated Signaling Events

Application Details

Restrictions:	For Research Use only

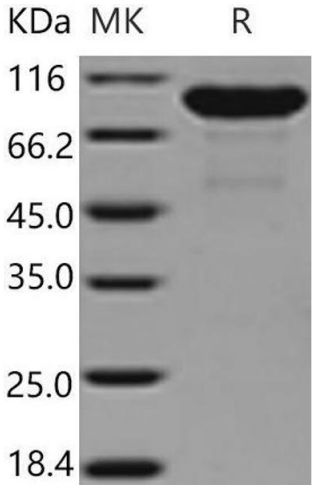
Handling

Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.

Handling

Buffer:	Lyophilized from sterile 50 mM MES, 100 mM NaCl, 1 mM CaCl2, 10 % Glycerol, pH 7.4
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.

Images



Western Blotting

Image 1.