

RPES8338

Product Information

Product SKU:	RPES8338	Expression Host:	Mammalian	Size:	20µg
Tag:	C-Fc	Reactivity:	Human	Accession:	P14780

Additional Information

Calculated MW:	102.6 kDa	Observed MW:	100-110 kDa
Sequence:	Met1-Asp707		

Protein Information

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 some 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 remodeling 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 on 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

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and diseased states are being actively investigated to pave the way for new therapeutic targets. Besides, the dramatic overexpression of MMP-9 in cancer and various inflammatory conditions points to the molecular mechanisms controlling its expression as a potential target for eventual rational therapeutic intervention.

Synonyms:	Matrix metalloproteinase, MANDP, MMP, MMP9, CLG4B, GELB, MANDP2, MMP-9, 92 kDa gelatinase, 92 kDa type IV collagenase, 92kDa Type IV Collagenase, Gelatinase B, Matrix metalloproteinase-9, 82 kDa matrix metalloproteinase-9, 92kDa gelatinase, 92kDa type IV collagenase), CLG 4B, CLG4B, Gelatinase B, Collagenase Type 4 beta, Collagenase type IV 92 KD, EC 3.4.24.35, Gelatinase 92 KD, Gelatinase beta, GelatinaseB, Macrophage gelatinase, Matrix metalloproteinase 9 (gelatinase B, Matrix Metalloproteinase 9, MMP 9, Type V collagenase
Endotoxin:	< 1.0 EU/mg of the protein as determined by the LAL method
Formulation:	Lyophilized from a 0.2 µm filtered solution in PBS with 5% Trehalose and 5% Mannitol.
Purity:	> 90% as determined by reducing SDS-PAGE.
Bio-Activity:	Not validated for activity
Storage:	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.