Datasheet for ABIN2666746

CCL7 Protein (AA 24-97)

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Overview

Quantity:	10 µg
Target:	CCL7
Protein Characteristics:	AA 24-97
Origin:	Mouse
Source:	Escherichia coli (E. coli)
Protein Type:	Recombinant
Biological Activity:	Active
Application:	Flow Cytometry (FACS)

Product Details

Purity:	> 98 % , as determined by Coomassie stained SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	Less than 0.01 ng per µg cytokine as determined by the LAL method.

Target Details

Target:	CCL7
Alternative Name:	CCL7 (CCL7 Products)
Background:	Mouse CCL7 was initially identified by differential screening of a cDNA library of serum stimulated NIH 3T3 cells. CCL7 has similarity with CCL2/MCP-1 (53 %) and CCL8/MCP-2 (48 %) at the amino acid level. Chemokines play a key role in inflammation and in the initial phase, CXC chemokines chemoattract polymorpho-nuclear leuckocytes (PMNs). The next step

Target Details

	in the inflammatory processes is directed in part by CC chemokines including the monocyte chemoattractant proteins (CCL2, CCL7, CCL8 and CCL13) that chemoattracts additional leucocytes subsets. It has been reported that MMPs regulate chemokine bioactivity, increasing or decreasing their chemoattractant property, MMP-8 and MMP-9 modulate CXC chemokines, and MMP-2 truncates the N-terminal of CCL7 eliminating the first four amino acids producing CCL7(5-76 residues), leading to a loss of activity. The truncated CCL7 binds to its receptor, but it does not induce signaling transduction. MCPs are truncated by different MMPs to create potent antagonists and induce decrease in inflammation. For example, MMP-13 cleaves CCL2 and CCL7 and generates potent receptor antagonists. In an experimental model of myocarditis induced in MMP-2 knockout mice, an increase of CCL7 and high inflammatory response, with pronounced myocardial damage mediated by inflammatory cells, resulted from reduced degradation of CCL7 due to the absence of MMP-2.
Molecular Weight:	The 74 amino acid recombinant protein has a predicted molecular mass of approximately 10.3 kDa. The DTT-reduced protein migrates at approximately 13 kDa and non-reduced protein migrates at approximately 14.5 kDa by SDS-PAGE. The N-terminal amino acid is G

Application Details

Application Notes:	Optimal working dilution should be determined by the investigator.
Comment:	Biological activity: Bioactivity was measured by its property to chemoattract human THP-1 cells in a dose dependent manner.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Reconstitution:	For maximum results, quick spin vial prior to opening. Stock solutions should be prepared at no less than 10 µg/mL in buffer (PBS, DPBS, HBSS, or EBSS) containing carrier protein such as 1 % BSA or HSA or 10 % FBS. After dilution, the cytokine can be stored between 2 °C and 8 °C for one month or from -20 °C to -70 °C for up to 3 months.
Buffer:	0.22 µm filtered protein solution is in PBS.
Handling Advice:	Avoid repeated freeze/thaw cycles.
Storage:	-20 °C
Storage Comment:	Unopened vial can be stored between 2°C and 8°C for three months, at -20°C for six months, or

at -70°C for one year.