Datasheet for ABIN2666927

CXCL7 Protein (AA 48-109)

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Overview

Quantity:	10 µg
Target:	CXCL7 (PPBP)
Protein Characteristics:	AA 48-109
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:	CXCL7 (PPBP)
Alternative Name:	CXCL7 (PPBP Products)
Background:	CXCL7 is an ERL+ chemokine that is secreted by activated platelets, neutrophils, lymphocytes, and macrophages as a precursor. Pro-platelet basic protein or leukocyte derived grow factor (PPBP/LDGF) (a protein of ~14 kD) is modified by post-transcriptional cleavage to give rise to connective tissue activating peptide (CTAP-III), CXCL7, β -thromboglobulin (β-TG), and two

Target Details

	variants of thrombocidin (TC-1 and TC-2). CTAP-III is activated by enzymatic proteolysis performed by cell surface-bound cathepsin G (CathG), a chymotryptic serine protease found in primary neutrophil granules. In this way, neutrophils are the mayor cells that convert CTAP-III into CXCL7. In addition, monocytes and mast cells can proteolytically modify CTAP-III to produce CXCL7. In fact, CathG has been detected in mast cells in addition to chymase, another chymotryptic enzyme. Further C-terminal truncations, that eliminate the last four and seven amino acids in CXCL7, generate two additional natural isoforms, these variants are more potent neutrophils activators. High levels of CTAP-III have been detected in plasma of patients with lung cancer. In fact, it has been suggested as a biomarker for early lung cancer detection. An increase in positive immunostained cells has been detected in the bronchial submucosa of patients with stable severe chronic obstructive pulmonary disease. Also, studies with premalignant breast cancer cells transfected with CXCL7 showed that these cells became as invasive as malignant breast cancer cells. In addition, CXCL7 induces stimulation of the lymphangiogenic factors VEGF-C and VEGF-D in human breast cancer cells, suggesting an important role for CXCL7 in tumor invasion.
Molecular Weight:	The 62 amino acid recombinant protein has a predicted molecular mass of approximately 6.7 kDa. The DTT-reduced and non-reduced protein migrate at approximately 11 and 9 kDa by SDS-PAGE respectively. The N-terminal amino acid is Ile.

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 neutrophils in a dose dependent manner.
Restrictions:	For Research Use only

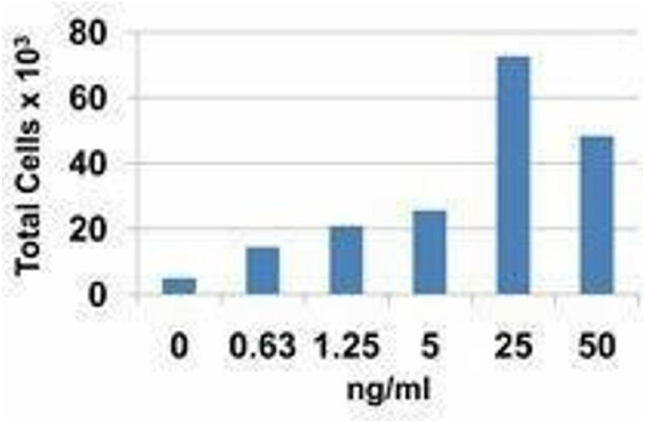
Handling

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 sterile buffer (PBS, HPBS, DPBS, and EBSS) containing carrier protein such as 1 % BSA or HSA. 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.

Handling

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.

Images



ELISA

Image 1.