

Recombinant Human GRO- α /CXCL1 Protein

Product Information

Product Name	Cat#	Size
Recombinant Human GRO- α /CXCL1 Protein	90904ES08	5 μ g
	90904ES20	20 μ g
	90904ES50	50 μ g
	90904ES60	100 μ g
	90904ES76	500 μ g

Product Description

CXCL1, also known as KC, GRO α , and CINC-1, is an approximately 8 kDa proinflammatory chemokine that plays a key role in neutrophil migration and activation. Mature human CXCL1 shares 64% and 67% aa sequence identity with mouse and rat CXCL1, respectively. It is produced by many cell types in inflammatory sites and during chronic inflammatory diseases. CXCL1 can associate into bioactive dimers and primarily signals through CXCR2/IL-8 RB but can also bind with lower affinity to CXCR2/IL-8 RA. It induces neutrophil migration, extravasation, respiratory burst, and degranulation and also induces T cells to produce proinflammatory IL-17. CXCL1 additionally binds to Syndecan-1 on epithelial cells which acts as a sink for CXCL1 activity until Syndecan-1 cleavage by MMP-7. CXCL1 is up-regulated in spinal cord astrocytes by inflammatory stimuli or tumor cell injection, and it exacerbates pain sensation by potentiating excitatory NMDA neurotransmission. In the circulatory system, CXCL1 interacts with CXCR2 on endothelial cells to promote lymphatic tube formation and angiogenesis. It promotes the hypertrophic differentiation of chondrocytes resulting in cartilage matrix deposition, calcification, and remodeling.

Product Properties

Synonyms	GRO α , MGSA, NAP-3
Accession	P09341
GeneID	2919
Source	E.coli-derived Human GRO- α ,Ala35-Asn107.
Molecular Weight	Approximately 7.9 kDa
AA Sequence	ASVATELRCQ CLQTLQGIHP KNIQSVNVKS PGPHCAQTEV IATLKNGRKA CLNPASPIVK KIIKMLNSD KSN
Tag	None
Physical Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Purity	> 97% by SDS-PAGE and HPLC analyses.
Biological Activity	Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using human peripheral blood neutrophils is in a concentration range of 10-50 ng/mL.
Endotoxin	< 1.0 EU per 1 μ g of the protein by the LAL method.
Formulation	Lyophilized from a 0.2 μ m filtered concentrated solution in 20 mM PB, pH 7.4, 150 mM NaCl.
Reconstitution	We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Reconstitute in sterile distilled water or aqueous buffer containing 0.1% BSA to a concentration of 0.1-1.0 mg/mL. Stock solutions should be apportioned into working aliquots and stored at \leq -20°C. Further dilutions should be made in appropriate buffered solutions.

Shipping and Storage

The products are shipped with ice pack and can be stored at -20°C to -80°C for 1 year.

Recommend to aliquot the protein into smaller quantities when first used and avoid repeated freeze-thaw cycles.

Cautions

1. Avoid repeated freeze-thaw cycle.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only.