

(CXCL12), human recombinant protein

Information

Gene ID	6387
Accession #	P48061
Alternate Names	SDF-1 alpha, hSDF-1 alpha, IRH, hIRH, PBSF
Source	<i>Escherichia coli</i> .
M.Wt	Approximately 8.0 kDa, a single non-glycosylated polypeptide chain containing 68 amino acids.
AA Sequence	KPVLSYRCP CRFFESHVAR ANVKHLKILN TPNCALQIVA RLKNNNRQVC IDPKLKWIQE YLEKALNK
Appearance	Sterile Filtered White lyophilized (freeze-dried) powder.
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. - 12 months from date of receipt, -20 to -70 °C as supplied. - 1 month, 2 to 8 °C under sterile conditions after reconstitution. - 3 months, -20 to -70 °C under sterile conditions after reconstitution.
Formulation	Lyophilized from a 0.2 µm filtered concentrated solution in 20 mM PB pH 7.0, 130 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 ≤ -20 °C. Further dilutions should be made in appropriate buffered solutions.
Biological Activity	Fully biologically active when compared to standard. The biological activity determined by a chemotaxis bioassay using PHA and rHuIL-2 activated human peripheral blood T-lymphocytes is in a concentration range of 20-80 ng/ml.
Shipping Condition	Gel pack.
Handling	Centrifuge the vial prior to opening.
Usage	For Research Use Only! Not to be used in humans.

Components and Storage

Components	10 µg	100 µg	500 µg
(CXCL12), human recombinant protein	10 µg	100 µg	500 µg

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Quality Control

Purity	> 97 % by SDS-PAGE and HPLC analyses.
Endotoxin	Less than 1 EU/μg of rHuSDF-1α/CXCL12α as determined by LAL method.

Description

CXCL12 also known as SDF-1 is belonging to the CXC chemokine family. It is encoded by the CXCL12 gene. In recently study, Human CXCL12 is expressed as six isoforms that differ only in the C-terminal tail. And all SDF-1 isoforms undergo proteolytic processing of the first two N-terminal amino acids. Contrast to the canonical sequence SDF-1β, SDF-1α is shorter by four amino acids at the C-terminal tail. On the cell surface, the receptor for this chemokine is CXCR4 and syndecan4. CXCL12 is strongly chemotactic for T-lymphocytes, monocytes, but not neutrophils. CXCL12 is a very important factor in carcinogenesis and the neovascularisation linked to tumor progression.

Reference

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