

Recombinant Human Stromal-Cell Derived Factor-1 alpha/CXCL12 alpha (Human SDF-1 α /CXCL12 α)

Product Information

| Product Name | Cat# | Size |
|--|-----------|-------------|
| Recombinant Human Stromal-Cell Derived Factor-1 alpha/CXCL12 alpha (Human SDF-1 α /CXCL12 α) | 90914ES05 | 2 μ g |
| | 90914ES10 | 10 μ g |
| | 90914ES50 | 50 μ g |
| | 90914ES60 | 100 μ g |
| | 90914ES76 | 500 μ g |

Product Description

CXCL12, also known as SDF-1, is a small (8 kDa) cytokine highly conserved chemotactic cytokine belonging to the large family of CXC chemokines. SDF-1 alpha and SDF-1 beta are the first cytokines initially identified using the signal sequence trap cloning strategy from a mouse bone-marrow stromal cell line. They are identical except for the four residues present in the C-terminus of SDF1 β but absent from SDF1 α . CXCL12 binds primarily to CXC receptor 4. The binding of CXCL12 to CXCR4 induces intracellular signaling through several divergent pathways initiating signals related to chemotaxis, cell survival and/or proliferation, increase in intracellular calcium, and gene transcription. The CXCL12/CXCR4 axis is involved in tumor progression, angiogenesis, metastasis, and survival. CXCL12 also can influence lymphopoiesis and regulate patterning and cell number of neural progenitors.

Product Properties

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|----------------------------|--|
| Synonyms | SDF-1 alpha, hSDF-1 alpha, IRH, hIRH, PBSF |
| Accession | P48061 |
| GeneID | 6387 |
| Source | E.coli-derived Human SDF-1 α /CXCL12 α , Lys22-Lys89. |
| Molecular Weight | Approximately 8.0 kDa. |
| AA Sequence | KPVLSYRCP CRFFESHVAR ANVKHLKILN TPNCALQIVA RLKNNNRQVC IDPKLKWIQE YLEKALNK |
| Tag | None |
| Physical Appearance | Sterile Filtered White lyophilized (freeze-dried) powder. |
| Purity | > 97% by SDS-PAGE and HPLC analyses. |
| Biological Activity | 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. Fully biologically active when compared to standard. |
| 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 7.0, 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 \leq -20 $^{\circ}$ 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 cycles.
2. For your safety and health, please wear lab coats and disposable gloves for operation.
3. For research use only.