PRODUCT DATA SHEET

Bioworld Technology,Inc.

Recombinant SDF-1α/CXCL12, Mouse

Catalog Number: BK0282-5μg Source: CHO Quantity: 5μg

Description:

SDF-1 α and SDF-1 β, members of the chemokine α subfamily that lack the ELR domain, were initially identified using the signal sequence trap cloning strategy from a mouse bone-marrow stromal cell line. SDF-1 α and SDF-1 β cDNAs encode precursor proteins of 89 and 93 amino acid residues, respectively. Both SDF-1 α and SDF-1 β are encoded by a single gene and arise by alternative splicing. The two proteins are identical except for the four amino acid residues that are present in the carboxy-terminus of SDF-1 β and absent from SDF-1 α. SDF-1/PBSF is highly conserved between species, with only one amino acid substitution between the mature human and mouse proteins. SDF-1/PBSF acts via the chemokine receptor CXCR4 and has been shown to be a chemoattractant for T-lymphocytes, monocytes, pro- and pre-B cells, but not neutrophils. Mice lacking SDF-1 or CXCR4 have been found to have impaired B-lymphopoiesis, myelopoiesis, vascular development, cardiogenesis and abnormal neuronal cell migration and patterning in the central nervous system.Recombinant Mouse SDF-1 α/CXCL12 produced in CHO cells is a polypeptide chain containing 68 amino acids. A fully biologically active molecule, rm SDF-1 β/CXCL12 has a molecular mass of 8 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

Molecular Weight:

8 kDa, observed by reducing SDS-PAGE.

Purity:

> 95% as analyzed by SDS-PAGE.

Biological Activity:

The EC50 value of mouse SDF-1 α/CXCL12 on Caˆ2+ mobilization assay in CHO-K1/Gα15/mCXCR4 cells (human Gα15 and mCXCR4 stably expressed in CHO-K1 cells) is less than 1.5 μg/ml.

Physical Appearance:

Sterile Filtered White lyophilized (freeze-dried) powder.

Formulation:

Lyophilized after extensive dialysis against PBS.

AA Sequence:

KPVSLSYRCPCRFFESHIARANVKHLKILNTPN-CALQIVARLKNNNRQVCIDPKLK-WIQEYLEKALNK

Endotoxin:

< 0.2 EU/μg, determined by LAL method.

Reconstitution:

Reconstituted in ddH2O or PBS at 100 μg/ml.

Storage:

Lyophilized recombinant Mouse SDF‑1 α/CXCL12 remains stable up to 6 months at -80℃ from date of receipt. Upon reconstitution, Mouse SDF‑1 α/CXCL12 should be stable up to 1 week at 4℃ or up to 3 months at -20℃.

Usage:

This material is offered by USA Bioworld biotech for research, laboratory or further evaluation purposes. For research use only.

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