Recombinant Mouse CXCL12 (SDF-1 beta)

Cat No:HR2R2096

For research use only

Overview

Quantity	1.0 ?g
Gene Symbol	CXCL12
Gene ID	20315
Accession	P40224
Alternative Name	12-O-tetradecanoylphorbol 13-acetate repressed protein 1, TPAR1, C-X-C motif chemokine 12, Pre-B cell growth-stimulating factor, PBSF, Thymic lymphoma cell-stimulating factor, TLSF Recombinant Mouse Stromal Cell-Derived Factor-1 Beta (CXCL12)
Species	Mouse
Source	E. coli
Description	SDF-1-alpha and SDF-1-beta are small cytokines belonging to the CXC- Chemokines. SDF-1 is identical with a chemokine reported to function as a pre-B-cell growth factor in the presence of IL-7 and isolated originally from a murine bone marrow stromal cell line. Human SDF-1-alpha and SDF-1-beta are encoded by a single gene and arise by alternative splicing. SDF-1 acts on lymphocytes and monocytes but not neutrophils in vitro and is a highly potent chemoattractant for mononuclear cells in vivo. In addition. SDF-1 also induces intracellular actin polymerization in lymphocytes. SDF acts as a chemoattractant for human hematopoietic progenitor cells expressing CD34 giving rise to mixed types of progenitors, and more primitive types. The chemotactic response is inhibited by pertussis toxin. Chemotaxis of CD34(+) cells in response to SDF is increased by IL-3 in vitro. SDF has been shown also to induce a transient elevation of cytoplasmic calcium in these cells.
Functions	Determined by its ability to chemoattract human peripheral T cells activated with PHA and IL-2 using a concentration range of 5.0-40 ng/mL.
Formulation	Mouse SDF-1 beta was lyophilized from a 0.2 ?m filtered solution in 2.5% glycine, 0.5% sucrose, 0.01% Tween80, 5 mM Glutamic acid, pH 4.5.
Solubility	A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers.
Appearance	Lyophilized Powder
Molecular Weight	8
Purity	>95% as determined by SDS-PAGE
Concentration	<1.0 EU/?g of recombinant protein as determined by the LAL method.
Shipping Condition	Ambient Temperature

Storage Condition	The lyophilized protein is stable for at least one year from date of receipt at -70?C. Upon reconstitution, this cytokine can be stored in working aliquots at 2? - 8?C for one month, or at -20?C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.