

Product Data Sheet

Cat # RP-1589 Recomb Hu Stromal Cell-Derived Factor-1 alpha (SDF1-alpha/CXCL12), his tag **Size:** 10 ug

SDF-1 (stromal cell-derived factor-1) is small cytokine belonging to the chemokine family that is officially designated Chemokine (C-X-C motif) ligand 12 (CXCL12). It is produced in two forms, SDF-1 β /CXCL12a and SDF-1 γ /CXCL12b, by alternate splicing of the same gene. Chemokines are characterized by the presence of four conserved cysteines, which form two disulfide bonds. The CXCL12 proteins belong to the group of CXC chemokines, whose initial pair of cysteines are separated by one intervening amino acid. CXCL12 is strongly chemotactic for lymphocytes and has been implicated as an important cell co-ordinator during development. During embryogenesis it directs the migration of hematopoietic cells from foetal liver to bone marrow. Mice which were knocked-out for CXCL12 gene were lethal before the birth or within just 1 hour of life. As another role, CXCL12a alters also the electrophysiology of neurons. CXCL12 was shown to be expressed in many tissues in mice (including brain, thymus, heart, lung, liver, kidney, spleen and bone marrow).

SOURCE:

Stromal Cell-Derived Factor-1 alpha Human Recombinant produced in E.Coli is a non-glycosylated, Polypeptide chain containing 78 amino acids, having a molecular mass of 9.2 kDa. The SDF-1a is fused to 10 amino acids His-Tag at N-terminus. The protein was filtered (0.4 μ m) and lyophilized from a concentrated (0.5mg/ml) solution

containing 20mM Tris buffer pH-7.5 and 20mM sodium chloride.

APPLICATION AND SUGGESTED DILUTIONS:

Greater than 95.0% as determined SDS-PAGE. Users must optimize the appropriate concentration and conditions for each assay.

STORAGE & STABILITY:

Lyophilized SDF1A although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution CXCL12 should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). It is recommended to add deionized water to a working concentration approximately 0.5 mg/ml and let the lyophilized pellet dissolve completely. Product is not sterile! Please filter the product by appropriate sterile filter before using it in the cell culture.

USAGE:

This item is for LABORATORY RESEARCH USE ONLY.

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