Human CXCL12/Stromal cell-derived factor 1 ELISA Kit

E45K00186

Catalog Number:E45K00186

Species Reactivity: Human

Storage: Store at +4°C. Please refer to protocols.

Cite ID#:EN5520637

Type: Human ELISA Kits

Description: Human CXCL12/Stromal cell-derived factor 1 ELISA Kit is a ready-to-use microwell, strip plate ELISA (enzyme-linked immunosorbent assay) Kit designed for the quantitative measurement of CXCL12 in biological samples. Our rigorously validated, ready-to-go Human CXCL12/Stromal cell-derived factor 1 ELISA Kit use a simple protocol that easily integrates into your current processes, allowing you to rapidly and accurately detect CXCL12 in your samples. Appropriate sample types may include Cell Culture Supernates, Serum, Platelet-poor EDTA Plasma, Platelet-poor Heparin Plasma, Urine. Precision Intra-Assay Precision (Precision within an assay): Three samples of known concentration were tested several times on one plate to assess intra-assay precision. Inter-Assay Precision (Precision between assays): Three samples of known concentration were tested in several separate assays to assess inter-assay precision. Assays were performed by at least two technicians using two lots of components.

Assay type: Sandwich

Detection principle: Spectrophotometrical

Sample type: This immunoassay kit allows for the in vitro quantitative determination in Serum, plasma, tissue homogenates, cell culture supernates and other biological fluids.

Sensitivity:0.051 ng/mL

Assay range:0.156-10 ng/mL

Kit components: Assay Plate, Standard, Sample Diluent, Assay Diluent A&B, Detection Reagent A&B, Wash Buffer, Substrate, Stop Solution.

Other reagents required: Deionized or distilled water

Gene Name:CXCL12

Swiss-Prot No.:P48061

Function: Chemoattractant active on T-lymphocytes, monocytes, but not neutrophils. Activates the C-X-C chemokine

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receptor CXCR4 to induce a rapid and transient rise in the level of intracellular calcium ions and chemotaxis. Also binds to atypical chemokine receptor ACKR3, which activates the beta-arrestin pathway and acts as a scavenger receptor for SDF-1. SDF-1-beta(3-72) and SDF-1-alpha(3-67) show a reduced chemotactic activity. Binding to cell surface proteoglycans seems to inhibit formation of SDF-1-alpha(3-67) and thus to preserve activity on local sites. Acts as a positive regulator of monocyte migration and a negative regulator of monocyte adhesion via the LYN kinase. Stimulates migration of monocytes and T-lymphocytes through its receptors, CXCR4 and ACKR3, and decreases monocyte adherence to surfaces coated with ICAM-1, a ligand for beta-2 integrins. SDF1A/CXCR4 signaling axis inhibits beta-2 integrin LFA-1 mediated adhesion of monocytes to ICAM-1 through LYN kinase. Inhibits CXCR4-mediated infection by T-cell line-adapted HIV-1. Plays a protective role after myocardial infarction. Induces down-regulation and internalization of ACKR3 expressed in various cells. Has several critical functions during embryonic development; required for B-cell lymphopoiesis, myelopoiesis in bone marrow and heart ventricular septum formation.

Form:ELISA Kits

Synonyms:SDF-1,C-X-C motif chemokine 12,Intercrine reduced in hepatomas,IRH,Pre-B cell growth-stimulating factor,PBSF,SDF1,SDF1A,SDF1B