PA1174

OriGene Technologies Inc.

9620 Medical Center Drive, Ste 200
Rockville, MD 20850
UNITED STATES
Phone: +1-858-888-7900
Fax: +1-858-888-7904
US-info@acris-antibodies.com

OriGene EU

Acris Antibodies GmbH
Schillerstr. 5
32052 Herford
GERMANY
Phone: +49-5221-34606-0
Fax: +49-5221-34606-11
info@acris-antibodies.com

Recombinant Murine Stromal Cell-Derived Factor-1 alpha (CXCL12)

Alternate names: CXCL12, SDF1 alpha

Catalog No.: PA1174

Quantity: 2 µg

Species: Mouse

Source: E. coli

Format: **Purity:** ›98% Greater than 98.0% as determined by:
(a) Analysis by RP-HPLC.
(b) Anion-exchange FPLC.
(c) Analysis by reducing and non-reducing SDS-PAGE Silver Stained gel.

Endotoxin: Less than 0.1 ng/µg (IEU/µg) of Recombinant Murine Stromal Cell-Derived Factor

Description: Recombinant Murine SDF-1a produced in E.coli is a non-glycosylated, polypeptide chain containing 68 amino acids and having a molecular mass of 7921 Dalton. Murine SDF-1a is purified by proprietary chromatographic techniques. Format: This antigen is supplied as sterile filtered, white lyophilized (freeze-dried) powder. SDF-1a was lyophilized from a concentrated (1 mg/ml) sterile solution containing 10 mM acetic acid (AcOH). It is recommended to reconstitute the lyophilized SDF-1alpha in sterile 18 MO-cm H2O not less than 100µg/ml, which can then be further diluted to other aqueous solutions. SDF-1a protein quantitation was carried out by two independent methods: 1. UV spectroscopy at 280 nm . 2. Analysis by RP-HPLC, using a calibrated solution of Recombinant Murine Stromal Cell-Derived Factor-1 beta as a Reference Standard.

AA Sequence:
The sequence of the first five N-terminal amino acids was determined and was found to be
Lys-Pro-Val-Ser-Leu.

Molecular weight: 8 kDa

Storage: Lyophilized SDF-1alpha although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution SDF-1a should be stored at 4°C between 2-7 days and for future use below -1°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.
Shelf life: one year from despatch.

General Readings: 1. HSulf-2, an extracellular endoglucosamine-6-sulfatase, selectively mobilizes heparin-bound growth factors and chemokines: effects on VEGF, FGF-1, and SDF-1.
BMC Biochem 2006 Jan 17;7:2
2. An SDF-1 trap for myeloid cells stimulates angiogenesis.

Cell 2006 Jan 13;124(1):18-21
3. The SDF-1/CXCR4 pathway and the development of the cerebellar system.
Eur J Neurosci 2005 Oct;22(8):1831-9
4. The neuroblast and angioblast chemotaxic factor SDF-1 (CXCL12) expression is briefly up regulated by reactive astrocytes in brain following neonatal hypoxic-ischemic injury. BMC Neurosci 2005 Oct 31;6:63
5. Lack of association of SDF-1 3'A variant allele with long-term nonprogressive HIV-1 infection is extended beyond 16 years.
J Acquir Immune Defic Syndr 2005 Nov 1;40(3):276-9
6. The chemokine SDF-1/CXCL12 contributes to T lymphocyte recruitment in human pre-ovulatory follicles and coordinates with lymphocytes to increase granulosa cell survival and embryo quality. Am J Reprod Immun