Leader in Biomolecular Solutions for Life Science

www.abclonal.com

Recombinant Canine CXCL12/SDF-1 Protein

Catalog No.: RP03263 Recombinant

Sequence Information

Species	Gene ID	Swiss Prot
Canine	449622	Q3LSL4

Tags
No tag

Synonyms
Stromal cell-derived factor 1; SDF-1; C-X-C motif chemokine 12; CXCL12

Product Information

Source	Purification
E.coli	≥ 95 % as determined by SDS-PAGE.

Calculated MW	Observed MW
8.6 kDa	10-14 kDa

Endotoxin
Please contact us for more information.

Formulation
Lyophilized from a 0.22 μm filtered solution of 50 mM Tris, 500 mM NaCl, pH 8.0. Contact us for customized product form or formulation.

Reconstitution
Please contact us for reconstitution instructions.

Contact

400-999-6126

cn.market@abclonal.com.cn

www.abclonal.com.cn

Background

The human stromal cell-derived factor-1 (SDF1), also known as CXCL12, is a small (8 kDa) cytokine highly conserved chemotactic cytokine belonging to the large family of CXC chemokines. SDF1 is expressed in two isoforms from a single gene that encodes two splice variants, SDF1α and SDF1β, which are identical except for the four residues present in the C-terminus of SDF1β but absent from SDF1α. The chemokine CXCL12 [stromal cell-derived factor-1 (SDF-1)] binds primarily to CXC receptor 4 (CXCR4; CD184). The binding of CXCL12 to CXCR4 induces intracellular signaling through several divergent pathways initiating signals related to chemotaxis, cell survival and/or proliferation, increase in intracellular calcium, and gene transcription. CXCL12 and CXCR4 that have been widely characterized in peripheral tissues and delineate their main functions in the CNS. Extensive evidence supports CXCL12 as a key regulator for early development of the CNS. In the mature CNS, CXCL12 modulates neurotransmission, neurotoxicity and neuroglial interactions. CXCL12 has crucial roles in the formation of multiple organ systems during embryogenesis and in the regulation of bone marrow haematopoiesis and immune function in the postnatal organism. Although considered an important factor in normal bone metabolism, recent studies implicate CXCL12 in the pathogenesis of several diseases involving the skeleton, including rheumatoid arthritis and cancers that metastasize to bone. The CXCL12/CXCR4 axis is involved in tumor progression, angiogenesis, metastasis, and survival. Pathologically enhanced CXCL12 signaling may promote the formation of new vessels through recruiting circulating endothelial progenitor cells or directly enhancing the migration/growth of endothelial cells. Therefore, CXCL12 signaling represents an important mechanism that regulates brain tumor angiogenesis/vasculogenesis and may provide potential targets for anti-angiogenic therapy in malignant gliomas.

Basic Information

Description
Recombinant Canine CXCL12/SDF-1 Protein is produced by *E. coli* expression system. The target protein is expressed with sequence(Lys22-Met93) of Canine CXCL12/SDF-1 (Accession #NP_001121569.1) fused with No tag.

Bio-Activity

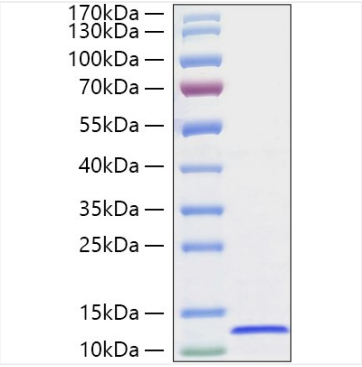
Shipping
The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃.Store the lyophilized protein at -20℃ to -80 ℃ up to 1 year from the date of receipt.
After reconstitution, the protein solution is stable at -20℃ for 3 months, at 2-8℃ for up to 1 week.
Avoid repeated freeze/thaw cycles.

Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

* □□□□□□□□□□□□□□□□□□□□□□□□□□□□

Validation Data



Recombinant Canine CXCL12/SDF-1 Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.

For research use only. Not for therapeutic or diagnostic purposes.
Please visit http://abclonal.com for a complete listing of recommended products.