QED BIOSCIENCE INC.
Advanced Research Technologies

product data sheet

Recombinant CXCL12a (SDF-1α), biotinylated

ORDERING INFORMATION

Catalog No.	Size
50185PB-2	2ug
50185PB-10	10ug
50185PB-50	50ug
50185PB-100	100ug

RELATED PRODUCTS

#1009 Anti-CXCR4 N-terminus Antibody
#1012 Anti-CXCR4 2nd Extracellular Loop Antibody

BACKGROUND

CXCL12a and CXCL12b, also known as Stromal Cell-Derived Factor 1α and 1β (SDF-1α and SDF-1β), are small cytokines that belong to the intercrine family. Both forms of CXCL12 are produced by alternate splicing of the same gene. CXCL12 is strongly chemotactic for T-lymphocytes and monocytes, and it plays an important role in angiogenesis by recruiting endothelial progenitor cells (EPCs) from the bone marrow through a CXCR4 dependent mechanism. It is this function of CXCL12 that makes it a very important factor in carcinogenesis and the neovascularisation linked to tumor progression. CXCL12 also has a role in tumor metastasis where cancer cells that express the receptor CXCR4 are attracted to metastasis target tissues that release the ligand, CXCL12. In breast cancer, however, increased expression of CXCL12 is associated with a reduced risk of distant metastasis. By blocking CXCR4, a major coreceptor for HIV-1 entry, CXCL12 acts as an endogenous inhibitor of CXCR4-tropic HIV-1 strains. CXCL12 was shown to be expressed in many tissues in mice including brain, thymus, heart, lung, liver, kidney, spleen and bone marrow.

DESCRIPTION

Source: Recombinant human CXCL12a is produced in *E. coli* (accession no. P48061-2).

Protein Sequence: KPVSLSYRCPCRFFESHVARANVKHLKILNTPNCALQIVARLKNNN RQVCIDPKLKWIQEYLEKALNKKLGSGLNDIFEAQKIEWHE

Modification: Biotinylated enzymatically at the last lysine in the sequence.

Molecular Mass: 10.4kDa by Mass Spec.

Purity: >97%

Activity: EC50 = 2.5nm determined by Calcium Flux with recombinant human CXCR4 cells.
Migration confirmed with U937 cells expressing CXCR4.

Endotoxin Level: <0.01 EU per 1ug of protein by LAL method.

Form: Lyophilized.

Carrier Protein: None.

PREPARATION AND STORAGE

Reconstitution: Recommended at 100ug/ml in sterile distilled water.

Stability and Storage: 12 months from date of receipt, -20°C to -70°C, as supplied.
1 month, 2°C to 8°C, under sterile conditions after reconstitution.
3 months, -20°C to -70°C, under sterile conditions after reconstitution.

For in vitro investigational use only. Not for use in diagnostic or therapeutic procedures.

QED Bioscience, Inc.
10919 Technology Place, Suite C
San Diego, CA 92127

Toll Free 800.929.2114
Phone 858.675.2405
Fax 858.592.1509
info@qedbio.com