antibodies

Datasheet for ABIN6239854 CXCL12 Protein (AA 23-89) (His tag,GST tag)





Overview

Quantity:	50 µg
Target:	CXCL12
Protein Characteristics:	AA 23-89
Origin:	Human
Source:	Escherichia coli (E. coli)
Biological Activity:	Active
Purification tag / Conjugate:	This CXCL12 protein is labelled with His tag,GST tag.
Application:	Cell Culture (CC), Activity Assay (AcA)

Product Details

Characteristics:	Tag location: N-terminal His and GST Tag
Purity:	> 97 %
Biological Activity Comment:	SDF1 (stromal cell-derived factor 1), also known as C-X-C motif chemokine 12, is a chemokine protein that has chemotaxis active on T-lymphocytes and monocytes. It is thought that SDF1 stimulates migration of monocytes and T-lymphocytes through its receptors, CXCR4 and ACKR3; thus, chemotaxis assay used 24-well microchemotaxis system was undertaken to detect the chemotactic effect of SDF1 on the human monocytic cell line THP-1. Briefly, THP-1 cells were seeded into the upper chambers (100uL cell suspension,106cells/mL in RPMI 1640 with 0.5% FBS) and SDF1 (10ng/mL, 30ng/mL and 60ng/mL diluted separately in serum free RPMI 1640) was added in lower chamber with a polycarbonate filter (8µm pore size) used to separate the two compartments. After incubation at 37°C with 5% CO2 for 3h, the filter was removed, then cells in low chamber were observed by inverted microscope at low magnification

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 1/4 | Product datasheet for ABIN6239854 | 09/10/2023 | Copyright antibodies-online. All rights reserved. (x100) and the number of migrated cells were counted at high magnification (x400) randomly (five fields for each filter). Result shows SDF1 is able to induce migration of THP-1 cells. The migrated THP-1 cells in low chamber at low magnification (x100) were shown in Figure 1. Five fields of each chamber were randomly chosen, and the migrated cells were counted at high magnification (x400). Statistical results were shown in Figure 2. The optimum chemotaxis of SDF1 occurs at 10ng/mL.

Target Details

Target:	CXCL12
Alternative Name:	Stromal Cell Derived Factor 1 (SDF1) (CXCL12 Products)
Background:	Alternative Names: CXCL12, PBSF, P-BSF, SCYB12, SDF1-A, SDF1-B, SDF1A, SDF1B, TLSF-A, TLSF-B, TPAR1, Pre-B Cell Growth-Stimulating Factor, Chemokine C-X-C-Motif Ligand 12
Molecular Weight:	40kDa
UniProt:	P48061
Pathways:	Regulation of Cell Size, CXCR4-mediated Signaling Events, Negative Regulation of intrinsic apoptotic Signaling

Application Details

Application Notes:	Isoelectric Point: 8.5
Restrictions:	For Research Use only

Handling

Format:	Lyophilized
Buffer:	20 mM Tris, 150 mM NaCl, pH 8.0, containing 1 mM EDTA, 1 mM DTT, 0.01 % SKL, 5 % Trehalose and Proclin300.
Preservative:	Dithiothreitol (DTT), Other preservative, ProClin
Precaution of Use:	This product contains ProClin and Dithiothreitol (DTT): POISONOUS AND HAZARDOUS SUBSTANCES which should be handled by trained staff only.

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 2/4 | Product datasheet for ABIN6239854 | 09/10/2023 | Copyright antibodies-online. All rights reserved.





Figure 1. The chemotactic effect of SDF1 on THP1 cells

(A) THP-1 cells were seeded into the upper chambers and serum free RPMI 1640 with 10ng/mL SDF1 was added in lower chamber, then cells in lower chamber were observed at low magnification (×100) after incubation for 3h;

(B) THP-1 cells were seeded into the upper chambers and serum free RPMI 1640 without SDF1 was added in lower chamber, then cells in lower chamber were observed at low magnification (×100) after incubation for 3h.



Figure 2. The chemotactic effect of SDF1 on THP-1 cells

Image 1.

Image 2.

Image 3. SDF1 (stromal cell-derived factor 1), also known as C-X-C motif chemokine 12, is a chemokine protein that has chemotaxis active on T-lymphocytes and monocytes. It is thought that SDF1 stimulates migration of monocytes and T-lymphocytes through its receptors, CXCR4 and ACKR3; 24-well thus, chemotaxis assay used microchemotaxis system was undertaken to detect the chemotactic effect of SDF1 on the human monocytic cell line THP-1. Briefly, THP-1 cells were seeded into the upper chambers (100uL cell suspension,106cells/mL in RPMI 1640 with 0.5% FBS) and SDF1 (10ng/mL, 30ng/mL and 60ng/mL diluted separately in serum free RPMI 1640) was added in lower chamber with a polycarbonate filter (8µm pore size) used to separate the two compartments. After

Order at www.antibodies-online.com | www.antikoerper-online.de | www.anticorps-enligne.fr | www.antibodies-online.cn International: +49 (0)241 95 163 153 | USA & Canada: +1 877 302 8632 | support@antibodies-online.com Page 3/4 | Product datasheet for ABIN6239854 | 09/10/2023 | Copyright antibodies-online. All rights reserved.

incubation at 37°C with 5% CO2 for 3h, the filter was removed, then cells in low chamber were observed by inverted microscope at low magnification (×100) and the number of migrated cells were counted at high magnification (×400) randomly (five fields for each filter). Result shows SDF1 is able to induce migration of THP-1 cells. The migrated THP-1 cells in low chamber at low magnification (×100) were shown in Figure 1. Five fields of each chamber were randomly chosen, and the migrated cells were counted at high magnification (×400). Statistical results were shown in Figure 2. The optimum chemotaxis of SDF1 occurs at 10ng/mL.