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## Product Datasheet

### Human SDF1 protein, His and GST tag (active), Unconjugated GTX00099-PRO

Article Name	Human SDF1 protein, His and GST tag (active), Unconjugated
Biozol Catalog Number	GTX00099-PRO
Supplier Catalog Number	GTX00099-pro
Alternative Catalog Number	GTX00099-PRO-10
Manufacturer	GeneTex
Category	Proteine/Peptide
Application	FA
Species Reactivity	Human
Conjugation	Unconjugated
NCBI	<a href="#">6387</a>
UniProt	<a href="#">P48061</a>
Buffer	Reconstitute with 20mM Tris and 150mM NaCl to 0.1-1.0mg/ml. Do not vortex. Lyophilized from 20mM Tris, 150mM NaCl, 1mM EDTA, 1mM DTT, 0.01% SKL, 5% Trehalose, ProClin 300.
Expression System	E. coli
Form	Lyophilized powder
Sequence	N-terminal His and GST-Tag, Pro23~Lys89 (NP_000600.1)

#### Application Notes

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 (100  $\mu$ l cell suspension,  $1 \times 10^6$  cells/ml in RPMI-1640 with 0.5% FBS) and SDF1 (10 ng/ml, 30 ng/ml and 60 ng/ml diluted separately in serum free RPMI-1640) was added in lower chamber with a polycarbonate filter (8  $\mu$ m pore size) used to separate the two compartments. After incubation at 37°C with 5% CO<sub>2</sub> for 3h, the filter was removed, then cells in low chamber were observed by inverted microscope at low magnification ( $\times 100$ ) and the number of migrated cells were counted at high magnification ( $\times 400$ ) randomly (five fields for each filter). The migrated THP-1 cells in low chamber at low magnification ( $\times 100$ ) randomly, and the migrated cells were counted at high magnification ( $\times 400$ ). SDF1 is able to induce migration of THP-1 cells, and the optimum chemotaxis of SDF1 occurs at 10 ng/ml.