

SDF-1 alpha Active Protein | SDF-1alpha active protein

Mouse SDF-1 alpha Recombinant

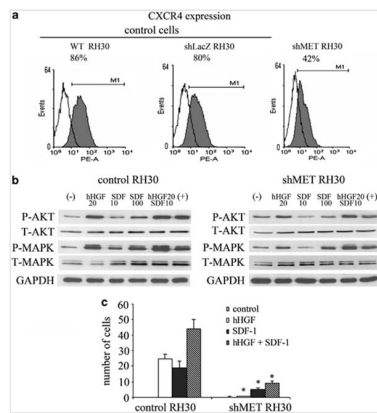
CATALOG #	HOST
AAA76395	E coli (Note: Host protein expression may be lot-specific and can be subject to change during production, including bulk orders.)

PRODUCT SYNONYMS

SDF-1 alpha; Mouse SDF-1 alpha Recombinant; SDF-1alpha active protein

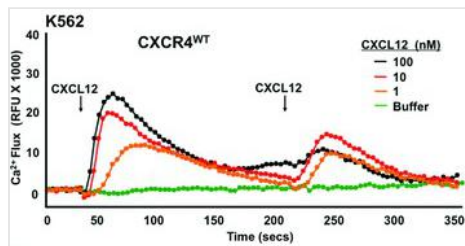
PRODUCT SPECIFICATIONS

Host	E coli (Note: Host protein expression may be lot-specific and can be subject to change during production, including bulk orders.)
Purity/Purification	>95%, as determined by SDS-PAGE and HPLC
Form/Format	Recombinant SDF-1 alpha was lyophilized from a 0.2 um filtered solution in .5% glycine, .5% sucrose, .01% Tween80, mM Glutamic acid, pH.5.
Sequence	MDAKVVAVLA LVLAALCISD GKPVSLSYRC PCRFFESHIA RANVKHLKIL NTPNCALQIV ARLKNNNRQV CIDPKLKWIQ EYLEKALNK
Source	Optimized DNA sequence encoding Mouse SDF-1 alpha mature chain was expressed in Escherichia Coli.
Endotoxin	Endotoxin content was assayed using a LAL gel clot method. Endotoxin level was found to be less than 0.1 ng/ug (1EU/ug).
Biological Activity	Determined by its ability to chemoattract human peripheral T cells activated with PHA and IL-2 using a concentration range of 40 ng/ml.
Method	Cell Migration The upper chamber wells of CIM-Plates 16 were precoated with fibronectin, added to wells at 10 ug/ml (30 ul) and removed after 30 min. The lower chamber wells were filled with 160 ul culture medium, allowing a clearly-defined meniscus to form. SDF1, MCP1 and TNFalpha were added to the lower chambers at a final concentration of 100 ng/ml. CIM-Plates were equilibrated for at least 30 min in a culture hood at room temperature. Trypsin-EDTA-dispersed MPCs (100 ul in complete medium) were then plated in the fibronectin-precoated upper chamber wells at 306x103 cells/cm2 (600000 cells/ml) in 100 ul complete medium, which we determined as the optimal density to ensure confluent monolayers. The CIM-Plates were inserted into the cradle pockets of the RTCA DP Analyzer, and the background impedance of each well was measured after 1 h. The RTCA DP Analyzer, placed in a standard cell-culture incubator, monitored the migrated cell number in each lower chamber well every 15 min (quadruplicate measurements) over 36 h. Data were analyzed with the RTCA Software.
Molecular Function	Cytokine, Growth-factor
Biological Process	Chemotaxis
Reconstitution	A quick spin of the vial followed by reconstitution in distilled water to a concentration not less than 0.1 mg/mL. This solution can then be diluted into other buffers.
Preparation and Storage	The lyophilized protein is stable for at least years from date of receipt at -20 degree C. Upon reconstitution, this cytokine can be stored in working aliquots at 2 degree -8 degree C for one month, or at -20 degree C for six months, with a carrier protein without detectable loss of activity. Avoid repeated freeze/thaw cycles.



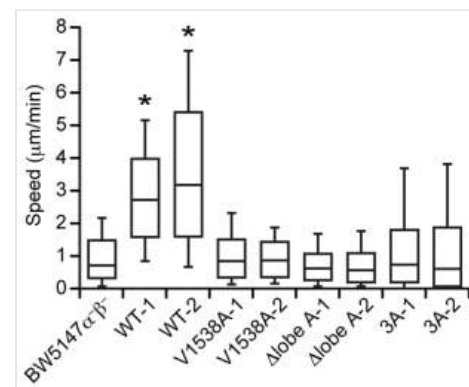
Application Data

Expression and function of the CXCR4 receptor in MET-depleted cell.(b) Western blot analysis of AKT and MAPK activation in shMET RH30 cells showed a decrease in the phosphorylation of these kinases following stimulation with human HGF (20?ng/ml) and SDF-1 (10?ng/ml and 100?ng/ml).



Application Data

WHIM mutation CXCR4R334X increases CXCL12-induced calcium flux response, but allows homologous desensitization: analysis of transfected cells.



Application Data

The expression of the ?lobe A and 3A mutant fails to restore motility and polarity in BW5147?/? cells. BW5147?/? cells stably expressing WT or mutant DOCK2 (V1538A, ?lobe A, or 3A) were stimulated in suspension with CXCL12, and stained with phalloidin and DAPI.

ADDITIONAL INFORMATION

Product Categories/Family for SDF-1alpha active protein	Recombinant Mouse Cytokines; CXC chemokines
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NCBI AND UNIPROT INFORMATION

NCBI GI #	7305465
NCBI GeneID	20315
NCBI Accession #	NP_038683.1
NCBI GenBank Nucleotide #	NM_013655.4
UniProt Accession #	P40224 ; Q8JLJ0 ; Q8QMN0 ; Q9JFT2
Molecular Weight	10,032 Da
NCBI Official Full Name	stromal cell-derived factor 1 isoform beta
NCBI Official Synonym Full Names	chemokine (C-X-C motif) ligand 12
NCBI Official Symbol	Cxcl12
NCBI Official Synonym Symbols	Pbsf; Sdf1; Tlsf; Tpar1; Scyb12
NCBI Protein Information	stromal cell-derived factor 1
UniProt Protein Name	Stromal cell-derived factor 1
UniProt Gene Name	Cxcl12

UniProt Synonym Gene Names	Sdf1; SDF-1; TPAR1; PBSF; TLSF
UniProt Entry Name	SDF1_MOUSE

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://www.aaabiotech.com/e-coli-sdf-1alpha-active-protein/sdf-1-alpha/76395>