

SDF-1 β (hBA-72): sc-4655

BACKGROUND

The C-X-C or α -chemokine family is characterized by a pair of cysteine residues separated by a single amino acid and primarily functions as chemoattractants for neutrophils. The C-X-C family includes IL-8, NAP-2, MSGA and stromal cell derived factor-1 or SDF-1. SDF-1 was originally described as a pre-B cell stimulatory factor, but has now been shown to function as a potent chemoattractant for T cells and monocytes but not neutrophils. Receptors for the C-X-C family are G protein-coupled, seven pass transmembrane domain proteins which include IL-8RA, IL-8RB and fusin (variously referred to as LESTR or CXCR-4). Fusin is highly homologous to the IL-8 receptors, sharing 37% sequence identity at the amino acid level. The IL-8 receptors bind to IL-8, NAP-2 and MSGA, while fusin binds to its cognate ligand, SDF-1. Fusin has been identified as the major coreceptor for T-tropic HIV-1 and SDF-1 has been shown to inhibit HIV-1 infection.

REFERENCES

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SOURCE

SDF-1 β (hBA-72) is produced in *E. coli* as 8.5 kDa biologically active protein corresponding to 72 amino acids of SDF-1 β of human origin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PRODUCT

SDF-1 β (hBA-72) is purified from bacterial lysates (>98%); supplied as 10 μ g purified protein.

BIOLOGICAL ACTIVITY

SDF-1 β (hBA-72) is biologically active as determined by its ability to chemoattract human peripheral T cells activated with PHA and IL-2 using a concentration range of 20–80 ng/ml.

RECONSTITUTION

In order to avoid freeze/thaw damaging of the active protein, dilute protein when first used to desired working concentration. Either a sterile filtered standard buffer (such as 50mM TRIS or 1X PBS) or water can be used for the dilution. Store any thawed aliquot in refrigeration at 2° C to 8° C for up to four weeks, and any frozen aliquot at -20° C to -80° C for up to one year. It is recommended that frozen aliquots be given an amount of standard cryopreservative (such as Ethylene Glycol or Glycerol 5-20% v/v), and refrigerated samples be given an amount of carrier protein (such as heat inactivated FBS or BSA to 0.1% v/v) or non-ionic detergent (such as Triton X-100 or Tween 20 to 0.005% v/v), to aid stability during storage.

STORAGE

Store desiccated at -20° C; stable for one year from the date of shipment.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.