

SDF-2 (J-22): sc-100660

BACKGROUND

Secretory proteins, such as enzymes, hormones and toxins, are exported by the cell into either ducts (exocrine) or the bloodstream (endocrine). Once secreted, these proteins have a variety of functions within the cell and are involved in signaling pathways, immune responses and hormone regulation. SDF-2 (stromal cell-derived factor-2) is a 211 amino acid protein that contains three MIR domains. Expressed throughout the body, SDF-2 shares 92% sequence similarity with its mouse counterpart and is thought to function as a secretory protein. Due to the high similarity between SDF-2 and its corresponding mouse protein, SDF-2 may have a conserved function among mammals.

REFERENCES

- Hamada, T., et al. 1996. Isolation and characterization of a novel secretory protein, stromal cell-derived factor-2 (SDF-2) using the signal sequence trap method. *Gene* 176: 211-214.
- Wang, N., et al. 1999. SDF-2 induction of terminal differentiation in *Dictyostelium discoideum* is mediated by the membrane-spanning sensor kinase DhkA. *Mol. Cell. Biol.* 19: 4750-4756.
- Fukuda, S., et al. 2001. Murine and human SDF2L1 is an endoplasmic reticulum stress-inducible gene and encodes a new member of the Pmt/rt protein family. *Biochem. Biophys. Res. Commun.* 280: 407-414.
- Meunier, L., et al. 2002. A subset of chaperones and folding enzymes form multiprotein complexes in endoplasmic reticulum to bind nascent proteins. *Mol. Biol. Cell* 13: 4456-4469.
- Online Mendelian Inheritance in Man, OMIM[™]. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 602934. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Kinseth, M.A., et al. 2007. The Golgi-associated protein GRASP is required for unconventional protein secretion during development. *Cell* 130: 524-534.

CHROMOSOMAL LOCATION

Genetic locus: SDF2 (human) mapping to 17q11.2; Sdf2 (mouse) mapping to 11 B5.

SOURCE

SDF-2 (J-22) is a mouse monoclonal antibody raised against amino acids 20-211 SDF-2 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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

APPLICATIONS

SDF-2 (J-22) is recommended for detection of SDF-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SDF-2 siRNA (h): sc-94163, SDF-2 siRNA (m): sc-153286, SDF-2 shRNA Plasmid (h): sc-94163-SH, SDF-2 shRNA Plasmid (m): sc-153286-SH, SDF-2 shRNA (h) Lentiviral Particles: sc-94163-V and SDF-2 shRNA (m) Lentiviral Particles: sc-153286-V.

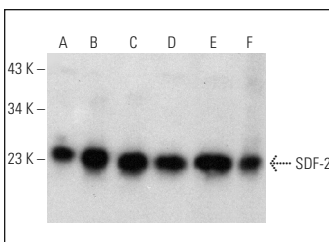
Molecular Weight of SDF-2: 23 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, HeLa whole cell lysate: sc-2200 or WI-38 whole cell lysate: sc-364260.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker[™] Molecular Weight Standards: sc-2035, UltraCruz[®] Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



SDF-2 (J-22): sc-100660. Western blot analysis of SDF-2 expression in HeLa (A), Hep G2 (B), WI-38 (C), c4 (D) and RPE-J (E) whole cell lysates and mouse liver tissue extract (F).

SELECT PRODUCT CITATIONS

- Kang, H., et al. 2009. Transcript analyses of stromal cell derived factors (SDFs): SDF-2, SDF-4 and SDF-5 reveal a different pattern of expression and prognostic association in human breast cancer. *Int. J. Oncol.* 35: 205-211.
- Siragusa, M., et al. 2015. Stromal cell-derived factor 2 is critical for Hsp90-dependent eNOS activation. *Sci. Signal.* 8: ra81.

PROTOCOLS

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