

# SCF (H-189): sc-9132

## BACKGROUND

Stem cell factor (SCF) is the ligand for the transmembrane tyrosine kinase receptor proto-oncogene c-Kit. SCF, also designated KL, MGF and SLF, is a pleiotropic cytokine that has 2 alternatively spliced forms, 248 and 220 amino acids in length in human and mouse systems, respectively. Both the larger form and the smaller form are cleaved to produce soluble forms. The smaller splice variant lacks the proteolytic cleavage site, between amino acids 149 and 177 of the larger SCF form. The larger SCF form is expressed in fibroblasts, brain and thymus, while the smaller SCF form is found in the spleen, testis, placenta and cerebellum. The SCF ligand is essential for the development of germ cells, hematopoietic progenitor cells and melanocyte precursors. With respect to mast cells, SCF can stimulate the proliferation of mature mast cells as well as the maturation and proliferation of immature mast cells.

## CHROMOSOMAL LOCATION

Genetic locus: KITLG (human) mapping to 12q21.32; Kitl (mouse) mapping to 10 D1.

## SOURCE

SCF (H-189) is a rabbit polyclonal antibody raised against amino acids 26-214 of SCF of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

SCF (H-189) is recommended for detection of SCF 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)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for SCF siRNA (h): sc-39734, SCF siRNA (m): sc-39735, SCF shRNA Plasmid (h): sc-39734-SH, SCF shRNA Plasmid (m): sc-39735-SH, SCF shRNA (h) Lentiviral Particles: sc-39734-V and SCF shRNA (m) Lentiviral Particles: sc-39735-V.

Molecular Weight of SCF: 45 kDa.

Positive Controls: SCF (m): 293T Lysate: sc-123381, SW480 cell lysate: sc-2219 or A549 cell lysate: sc-2413.

## STORAGE

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

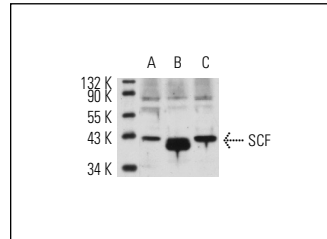
## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

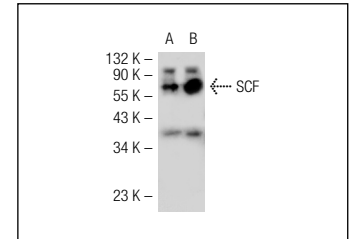
## RESEARCH USE

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

## DATA



SCF (H-189): sc-9132. Western blot analysis of SCF expression in HeLa (A), SW480 (B) and A549 (C) whole cell lysates.



SCF (H-189): sc-9132. Western blot analysis of SCF expression in non-transfected: sc-117752 (A) and mouse SCF transfected: sc-123381 (B) 293T whole cell lysates.

## SELECT PRODUCT CITATIONS

- Kakurai, M., et al. 2002. Vasoactive intestinal peptide and cytokines enhance stem cell factor production from epidermal keratinocytes DJM-1. *J. Invest. Dermatol.* 119: 1183-1188.
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- Wu, Y., et al. 2010. c-Kit and stem cell factor regulate PANC-1 cell differentiation into insulin- and glucagon-producing cells. *Lab. Invest.* 90: 1373-1384.
- Deshpande, S., et al. 2010. Kit ligand cytoplasmic domain is essential for basolateral sorting *in vivo* and has roles in spermatogenesis and hematopoiesis. *Dev. Biol.* 337: 199-210.
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- Raucci, F., et al. 2011. Localization of c-kit and stem cell factor (SCF) in ovarian follicular epithelium of a lizard, *Podarcis s. sicula*. *Acta Histochem.* 113: 647-655.
- Ge, D., et al. 2013. Phosphorylation and nuclear translocation of integrin β4 induced by a chemical small molecule contribute to apoptosis in vascular endothelial cells. *Apoptosis* 18: 1120-1131.
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