

# c-Kit (H-300): sc-5535

## BACKGROUND

The c-Kit proto-oncogene is a member of the receptor tyrosine kinase family and, more specifically, is closely related to the platelet derived growth factor receptor (PDGFR). c-Kit, the normal cellular homolog of the HZ4-feline sarcoma virus transforming gene (v-Kit), encodes a transmembrane receptor. c-Kit regulates a variety of biological responses including chemotaxis, cell proliferation, apoptosis and adhesion. c-Kit is also identical with the product of the W locus in mice and, as such, is integral to the development of mast cells and hematopoiesis. The ligand for the c-Kit receptor (KL) has been identified and is encoded at the murine steel (Sl) locus. Kit is the human homolog of the proto-oncogene c-Kit. Mutations in Kit are integral for tumor growth and progression in various cancers.

## CHROMOSOMAL LOCATION

Genetic locus: KIT (human) mapping to 4q12; Kit (mouse) mapping to 5 C3.3.

## SOURCE

c-Kit (H-300) is a rabbit polyclonal antibody raised against amino acids 23-322 of c-Kit 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

c-Kit (H-300) is recommended for detection of c-Kit of mouse, rat and human 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), immunohistochemistry (including paraffin-embedded sections) (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 c-Kit siRNA (h): sc-29225, c-Kit siRNA (m): sc-29852, c-Kit siRNA (r): sc-63363, c-Kit shRNA Plasmid (h): sc-29225-SH, c-Kit shRNA Plasmid (m): sc-29852-SH, c-Kit shRNA Plasmid (r): sc-63363-SH, c-Kit shRNA (h) Lentiviral Particles: sc-29225-V, c-Kit shRNA (m) Lentiviral Particles: sc-29852-V and c-Kit shRNA (r) Lentiviral Particles: sc-63363-V.

Molecular Weight of c-Kit precursor: 120 kDa.

Molecular Weight of mature c-Kit: 145 kDa.

Positive Controls: CCRF-HSB-2 cell lysate: sc-2265, HEL 92.1.7 cell lysate: sc-2270 or TF-1 cell lysate: sc-2412.

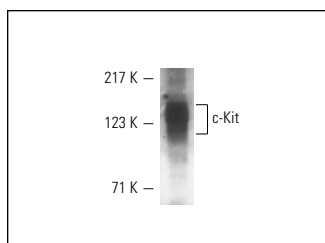
## STORAGE

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

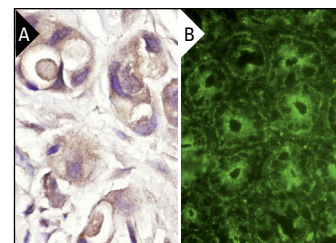
## RESEARCH USE

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

## DATA



c-Kit (H-300): sc-5535. Western blot analysis of c-Kit expression in CCRF-HSB-2 whole cell lysate.



c-Kit (H-300): sc-5535. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human breast tumor showing distinct membrane and cytoplasmic staining (A). Immunofluorescence staining of normal mouse intestine frozen section showing membrane staining (B).

## SELECT PRODUCT CITATIONS

- Esposito, I., et al. 2001. Mast cell distribution and activation in chronic pancreatitis. *Hum. Pathol.* 32: 1174-1183.
- Vigodner, M., et al. 2001. Spermatogenesis in the golden hamster: the role of c-Kit. *Mol. Reprod. Dev.* 60: 562-568.
- Huang, X., et al. 2010. Spontaneous rhythmic inward currents recorded in interstitial cells of rabbit portal vein. *Cell Biochem. Biophys.* 57: 77-85.
- Lovell, M.J., et al. 2010. Bone marrow mononuclear cells reduce myocardial reperfusion injury by activating the PI3K/Akt survival pathway. *Atherosclerosis* 213: 67-76.
- De Visscher, G., et al. 2010. The remodeling of cardiovascular bioprostheses under influence of stem cell homing signal pathways. *Biomaterials* 31: 20-28.
- Kita, K., et al. 2010. Isolation and characterization of mesenchymal stem cells from the sub-amniotic human umbilical cord lining membrane. *Stem Cells Dev.* 19: 491-502.
- Jeziarski, A., et al. 2010. Probing stemness and neural commitment in human amniotic fluid cells. *Stem Cell Rev.* 6: 199-214.
- Qiu, Z.X., et al. 2010. Atrial natriuretic peptide signal pathway upregulated in stomach of streptozotocin-induced diabetic mice. *World J. Gastroenterol.* 16: 48-55.
- Yoshida, A., et al. 2012. *In vitro* tissue engineering of smooth muscle sheets with peristalsis using a murine induced pluripotent stem cell line. *J. Pediatr. Surg.* 47: 329-335.



Try **c-Kit (E-3): sc-365504** or **c-Kit (Ab 81): sc-13508**, our highly recommended monoclonal alternatives to c-Kit (H-300). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **c-Kit (E-3): sc-365504**.