

c-Kit (C-14): sc-1493

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 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus 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.

Blocking peptide available for competition studies, sc-1493 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

c-Kit (C-14) is recommended for detection of c-Kit p145 of human and, to a lesser extent, mouse 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).

c-Kit (C-14) is also recommended for detection of c-Kit p145 in additional species, including canine.

Suitable for use as control antibody for c-Kit siRNA (h): sc-29225, c-Kit siRNA (m): sc-29852, c-Kit shRNA Plasmid (h): sc-29225-SH, c-Kit shRNA Plasmid (m): sc-29852-SH, c-Kit shRNA (h) Lentiviral Particles: sc-29225-V and c-Kit shRNA (m) Lentiviral Particles: sc-29852-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.

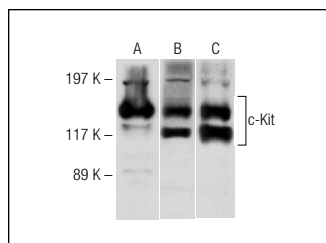
STORAGE

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



Western blot analysis of c-Kit expression in CCRF-HSB-2 whole cell lysates (A-C). Antibodies tested include c-Kit (C-19): sc-168 (A), c-Kit (C-14): sc-1493 (B) and c-Kit (M-14): sc-1494 (C).

SELECT PRODUCT CITATIONS

1. Teyssier-Le Discorde, M., et al. 1999. Spatial and temporal mapping of c-kit and its ligand, stem cell factor expression during human embryonic haemopoiesis. *Br. J. Haematol.* 107: 247-253.
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3. Ozer, O., et al. 2008. The identification and characterisation of novel KIT transcripts in aggressive mast cell malignancies and normal CD34⁺ cells. *Leuk. Lymphoma* 49: 1567-1577.
4. Gromova, P., et al. 2009. Kit K641E oncogene up-regulates Sprouty homolog 4 and trophoblast glycoprotein in interstitial cells of Cajal in a murine model of gastrointestinal stromal tumours. *J. Cell. Mol. Med.* 13: 1536-1548.
5. Zhou, G.S., et al. 2010. Biologic activity of triptolide in t(8;21) acute myeloid leukemia cells. *Leuk Res.* 35: 214-218.
6. Deneubourg, L., et al. 2011. Abnormal elevated PTEN expression in the mouse antrum of a model of GIST Kit(K641E/K641E). *Cell. Signal.* 23: 1857-1868.
7. Gromova, P., et al. 2011. Neurotensin receptor 1 is expressed in gastrointestinal stromal tumors but not in interstitial cells of Cajal. *PLoS ONE* 6: e14710.
8. Fang, H.T., et al. 2012. Bortezomib interferes with C-KIT processing and transforms the t(8;21)-generated fusion proteins into tumor-suppressing fragments in leukemia cells. *Proc. Natl. Acad. Sci. USA* 109: 2521-2526.



Try **c-Kit (E-3): sc-365504** or **c-Kit (Ab 81): sc-13508**, our highly recommended monoclonal alternatives to c-Kit (C-14). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **c-Kit (E-3): sc-365504**.