

phospho c-Kit [pY936]. Rabbit Phosphorylation Site-Specific Antibody Polyclonal Human, (b)

BACKGROUND

c-Kit, also known as CD117 and stem cell factor receptor, is a 145 kDa transmembrane tyrosine kinase encoded by the c-Kit proto-oncogene. c-Kit acts to regulate a variety of biological responses including cell proliferation, apoptosis, chemotaxis and adhesion. Ligand binding to the extracellular domain leads to autophosphorylation on several tyrosine residues within the cytoplasmic domain, and activation. c-Kit mutations correlate with tumor growth and progression in a variety of cancers including mast cell disease, gastrointestinal stromal tumor, acute myeloid leukemia, Ewing sarcoma, and lung cancer. Phosphorylation at tyrosine 936 of c-Kit allows binding of Grb2 and activation of the Ras → Raf → ERK1&2 signaling pathway.

ORDERING INFORMATION

CATALOG NUMBER
X2022P

SIZE
10 Miniblots

FORM

HOST/CLONE
Rabbit Clone Polyclonal

FORMULATION

Provided as solution in phosphate buffered saline, pH 7.3, with 1.0 mg/ml BSA, 50% glycerol and 0.05% sodium azide

CONCENTRATION

ISOTYPE
IgG2b

APPLICATIONS
Western Blot

SPECIES REACTIVITY

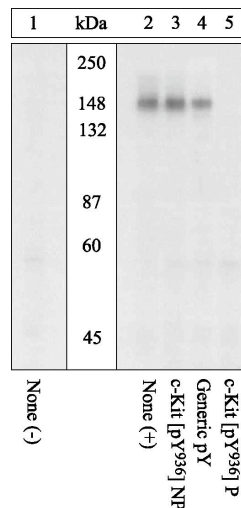
Human, (b)

IMMUNOGEN

The antiserum was produced against a chemically synthesized phosphopeptide derived from a region of human c-Kit that contains tyrosine 936. The sequence is conserved in cow.

Legend: Peptide Competition

Extracts prepared from M07e cells left untreated (1) or treated (2-5) with SCF were resolved by SDS-PAGE I and transferred to PVDF. Membranes were blocked with a BSA-TBST buffer overnight incubated with c-Kit [pY936] antibody for two hours at RT, following prior incubation with: no peptide (1, 2), the non-phosphopeptide corresponding to the immunogen (3), a generic phosphotyrosine-containing peptide (4), or, the phosphopeptide immunogen (5). After washing, membranes were incubated with goat F(ab')₂ anti-rabbit IgG alkaline phosphatase and detected using the Tropix WesternStar™ method.



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POSITIVE CONTROL/TISSUE EXPRESSION**COMMENTS**

Optimal concentration should be evaluated by serial dilutions. For Western blotting applications, we recommend using the antibody at a 1:1000 dilution.

SHIP CONDITIONS

Ship at ambient temperature, freeze upon arrival

STORAGE CUSTOMER

Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

STABILITY

Products are stable for one year from purchase when stored properly

REFERENCES

Liang, X., et al. (2002) Phosphatidylinositol 3-kinase and Src family kinases are required for phosphorylation and membrane recruitment of Dok-1 in c-Kit signaling. *J. Biol. Chem.* 277(16):13732-13738.

Demetri, G.D. (2001) Targeting c-kit mutations in solid tumors: scientific rationale and novel therapeutic options. *Semin. Oncol.* 28(5 Suppl 17):19-26.

Taylor, M.L. and D.D. Metcalfe (2000) Kit signal transduction. *Hematol. Oncol. Clin. North Am.* 14(3):517-535.

Thommes, K., et al. (1999) Identification of Tyr-703 and Tyr-936 as the primary association sites for Grb2 and Grb7 in the c-Kit/stem cell factor receptor. *Biochem. J.* 341(Pt 1):211-216.

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