

## DESCRIPTION

<b>Species Reactivity</b>	Human
<b>Specificity</b>	Detects human and mouse CD117/c-kit in direct ELISAs and Western blots. In Western blots, approximately 2% cross-reactivity with recombinant human PDGF sRα is observed.
<b>Source</b>	Polyclonal Goat IgG
<b>Purification</b>	Antigen Affinity-purified
<b>Immunogen</b>	<i>S. frugiperda</i> insect ovarian cell line Sf 21-derived recombinant human CD117/c-kit Gln26-Thr520 Accession # P10721
<b>Conjugate</b>	Alexa Fluor 594 Excitation Wavelength: 590 nm Emission Wavelength: 617 nm
<b>Formulation</b>	Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide  *Contains <0.1% Sodium Azide, which is not hazardous at this concentration according to GHS classifications. Refer to the Safety Data Sheet (SDS) for additional information and handling instructions.

## APPLICATIONS

**Please Note:** Optimal dilutions should be determined by each laboratory for each application. [General Protocols](#) are available in the Technical Information section on our website.

<b>CyTOF-ready</b>	Optimal dilution of this antibody should be experimentally determined.
<b>Neutralization</b>	Optimal dilution of this antibody should be experimentally determined.
<b>Western Blot</b>	Optimal dilution of this antibody should be experimentally determined.
<b>Flow Cytometry</b>	Optimal dilution of this antibody should be experimentally determined.
<b>Immunohistochemistry</b>	Optimal dilution of this antibody should be experimentally determined.

## PREPARATION AND STORAGE

<b>Shipping</b>	The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.
<b>Stability &amp; Storage</b>	Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

## BACKGROUND

Stem cell factor receptor (CD117, the gene product of the *c-kit* proto-oncogene) and its ligand, stem cell factor (also named c-kit ligand, mast cell growth factor), play essential roles in gametogenesis, melanogenesis and hematopoiesis. The human stem cell factor receptor cDNA encodes a 972 amino acid (aa) residue precursor membrane protein with a 25 aa residue signal peptide (experimentally determined), a 495 aa residue extracellular domain, a 23 aa residue transmembrane segment and a 429 aa residue cytoplasmic domain. Stem cell factor receptor is a member of the type III subfamily of receptor tyrosine kinases (RTK) that also includes the receptors for M-CSF, Flt-3, PDGF, and VEGF. All class III RTKs are characterized by the presence of five immunoglobulin-like domains in their extracellular region and a split kinase domain in their intracellular region. SCF binding induces receptor homodimerization and signal transduction. SCF receptor is expressed in hematopoietic progenitor cells, normal B- and T-lymphocyte progenitor cells, mast cells, germ cells, melanocytes, neurons, glial cells, placenta, kidney, lung, and gut. In addition, SCF receptor expression has also been reported in a number of human tumor cell lines. SCF receptor can be proteolytically cleaved from the cell surface and high levels of soluble SCF receptor has been detected in cell conditioned medium and human plasma. Recombinant soluble SCF receptor binds SCF with high affinity and is a potent SCF antagonist.

## PRODUCT SPECIFIC NOTICES

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