

#### DESCRIPTION

|                           |                                                                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Species Reactivity</b> | Mouse/Rat                                                                                                                                                                                                                                                                   |
| <b>Specificity</b>        | Detect mouse and rat SCF/c-kit Ligand in direct ELISAs and Western blots. In direct ELISAs, approximately 20% cross-reactivity with recombinant human SCF/c-kit Ligand is observed.                                                                                         |
| <b>Source</b>             | Polyclonal Sheep IgG                                                                                                                                                                                                                                                        |
| <b>Purification</b>       | Antigen Affinity-purified                                                                                                                                                                                                                                                   |
| <b>Immunogen</b>          | <i>E. coli</i> -derived recombinant rat SCF/c-kit Ligand<br>Gln26-Ala189<br>Accession # P21581                                                                                                                                                                              |
| <b>Conjugate</b>          | Alexa Fluor 594<br>Excitation Wavelength: 590 nm<br>Emission Wavelength: 617 nm                                                                                                                                                                                             |
| <b>Formulation</b>        | Supplied 0.2mg/ml in 1X PBS with RDF1 and 0.09% Sodium Azide<br><br>*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.

**Western Blot** Optimal dilution of this antibody should be experimentally determined.

#### PREPARATION AND STORAGE

**Shipping** The product is shipped with polar packs. Upon receipt, store it immediately at the temperature recommended below.

**Stability & Storage** Protect from light. Do not freeze. 12 months from date of receipt, 2 to 8 °C as supplied

#### BACKGROUND

SCF (Stem Cell Factor; also kit ligand and MGF) is a 40-45 kDa member of the SCF family of molecules. It is expressed by multiple cell types, including Sertoli cells, neurons, select fibroblasts, mast cells, melanocytes and dendritic cells. SCF binds to SCFR/c-kit (for kitten; the animal used to isolate it), and occurs in both a soluble and membrane-bound form. The soluble form of SCF produces a transient activation of SCFR, while the membrane-bound form generates a long-lasting signal in the SCFR due to the ligation and retention of SCFR at the expressing cell surface. Mature rat SCF is a 248 amino acid (aa) type I transmembrane (TM) glycoprotein (aa 26-273). It contains a 189 aa extracellular region (aa 26-214) plus a 36 aa cytoplasmic domain (aa 238-273). Proteolytic cleavage after Ala190 generates a 25-38 kDa soluble form that circulates as both a monomer and noncovalent homodimer. There is also possible cleavage after Phe183 that will create a similarly-sized isoform. An alternative splice form also exists that contains a Gly substitution for aa 174-292. This 28-32 kDa TM form may also undergo cleavage to generate a soluble 19-21 kDa isoform. Over aa 26-189, rat SCF shares 94%, 77% and 79% aa sequence identity with mouse, feline and human SCF, respectively.

#### PRODUCT SPECIFIC NOTICES

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