

DESCRIPTION

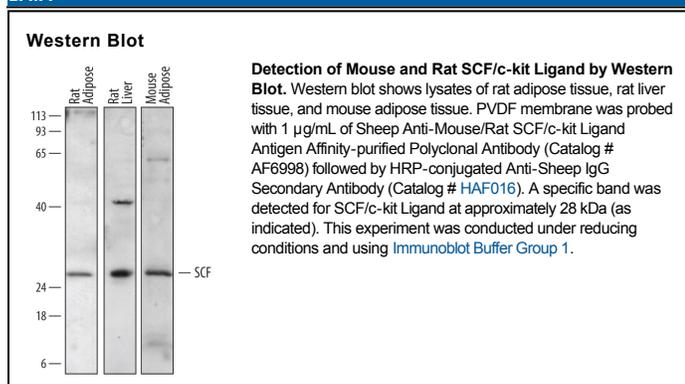
Species Reactivity	Mouse/Rat
Specificity	Detect mouse and rat SCF/c-kit Ligand in direct ELISAs and Western blots. In direct ELISAs, approximately 20% cross-reactivity with recombinant human SCF/c-kit Ligand is observed.
Source	Polyclonal Sheep IgG
Purification	Antigen Affinity-purified
Immunogen	<i>E. coli</i> -derived recombinant rat SCF/c-kit Ligand Gln26-Ala189 Accession # P21581
Formulation	Lyophilized from a 0.2 µm filtered solution in PBS with Trehalose. See Certificate of Analysis for details. *Small pack size (-SP) is supplied as a 0.2 µm filtered solution in PBS.

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.

	Recommended Concentration	Sample
Western Blot	1 µg/mL	See Below

DATA



PREPARATION AND STORAGE

Reconstitution	Sterile PBS to a final concentration of 0.2 mg/mL.
Shipping	The product is shipped at ambient temperature. Upon receipt, store it immediately at the temperature recommended below. *Small pack size (-SP) is shipped with polar packs. Upon receipt, store it immediately at -20 to -70 °C
Stability & Storage	Use a manual defrost freezer and avoid repeated freeze-thaw cycles. <ul style="list-style-type: none"> ● 12 months from date of receipt, -20 to -70 °C as supplied. ● 1 month, 2 to 8 °C under sterile conditions after reconstitution. ● 6 months, -20 to -70 °C under sterile conditions after reconstitution.

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.