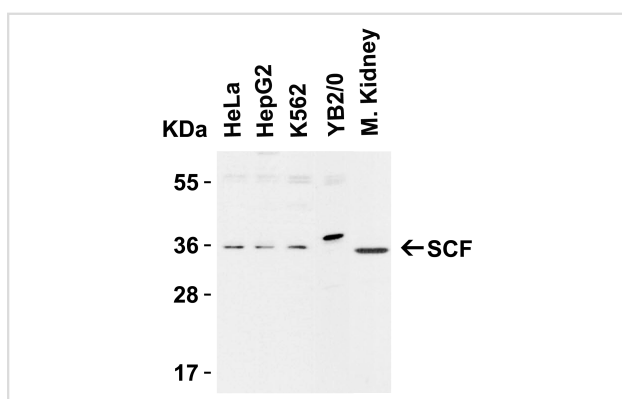


Description

Product Name	SCF Antibody
Host Species	Rabbit
Clonality	Polyclonal
Purification	Affinity chromatography purified via peptide column
Applications	ELISA, WB, IHC-P, IF
Species Reactivity	Hu Ms Rt
Immunogen Type	Peptide
Immunogen Description	Raised against an 18 amino acid peptide from near the center of human SCF.
Target Name	SCF
Other Names	Stem cell factor, Mast cell growth factor, MGF, c-kit ligand, KL-1, KITLG, SHEP7
Accession No.	P21583
Uniprot	P21583
GeneID	4254;
Calculated MW	Predicted: 31kD Observed: 36 kD (31kD + 4 N-linked Glycosylations)
Concentration	1mg/ml
Formulation	Supplied in PBS containing 0.02% sodium azide.
Storage	Stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Images

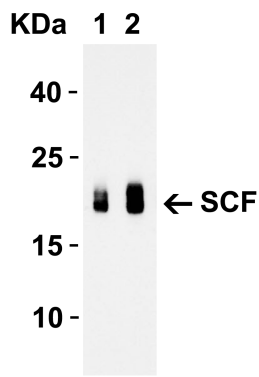


Western Blot Validation in Cell Lines and Tissues of Human, Mouse and Rat

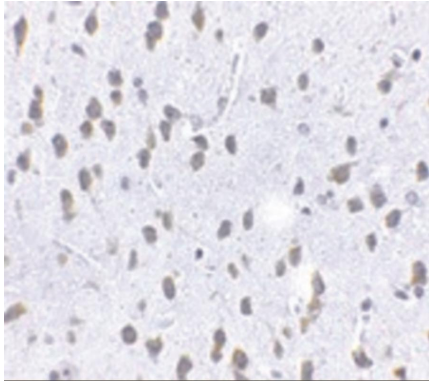
Loading: 15 ug of lysates per lane.

Antibodies: SCF (1 ug/mL), 1h incubation at RT in 5% NFDN/TBST.

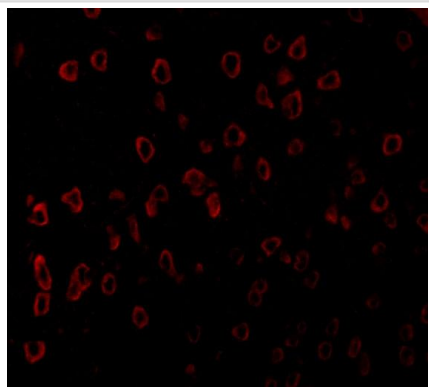
Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution.



Western Blot Validation with Recombinant Protein
 Loading: 30 ng of human SCF recombinant protein per lane. Antibodies: SCF (Lane 1: 1 ug/mL and Lane 2: 2 ug/mL), 1h incubation at RT in 5% NFDN/TBST. Secondary: Goat anti-rabbit IgG HRP conjugate at 1:10000 dilution. Observed at around 20kD.



Immunohistochemistry Validation of SCF in Mouse Brain Tissue
 Immunohistochemical analysis of paraffin-embedded mouse brain tissue using anti-SCF antibody at 2.5 ug/ml. Tissue was fixed with formaldehyde and blocked with 10% serum for 1 h at RT; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody overnight at 4 °C. A goat anti-rabbit IgG H&L (HRP) at 1/250 was used as secondary. Counter stained with Hematoxylin.



Immunofluorescence Validation of SCF in Human Brain Tissue
 Immunofluorescent analysis of 4% paraformaldehyde-fixed human brain tissue labeling SCF at 20 ug/mL, followed by goat anti-rabbit IgG secondary antibody at 1/500 dilution (red).

Background

Stem cell factor (SCF) is the ligand of the c-Kit oncogene and is expressed by various structural and inflammatory cells in the airways. Binding of SCF by the c-Kit receptor leads to homodimerization of the receptor and the activation of signalling pathways such as PI-3, PLC-gamma, Jak/STAT, and MAP kinase pathways. SCF expression leads to the induction of mast cell survival and the expression and release of histamine, pro-inflammatory cytokines and chemokines. The inhibition of the SCF/c-Kit pathway leads to a decrease in histamine levels, mast cell and eosinophil infiltration, IL-4 production and airway hyperresponsiveness, suggesting this pathway may be a useful therapeutic target in inflammatory diseases such as asthma. At least two isoforms of SCF are known to exist.

Note: This product is for in vitro research use only