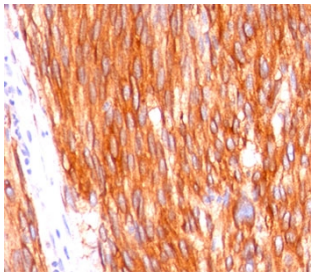
SCFR Antibody C117/370 / Stem Cell Factor Receptor Antibody [clone C117/370] (V2167)

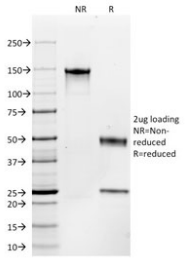
Catalog No.	Formulation	Size
V2167-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2167-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2167SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

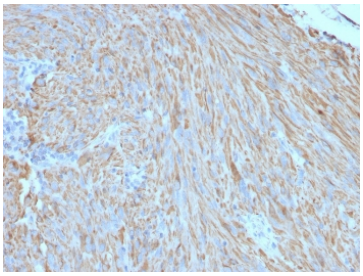
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG2b, kappa
Clone Name	C117/370
Purity	Protein G affinity chromatography
Buffer	1X PBS, pH 7.4
Gene ID	3815
Localization	Cell surface and cytoplasmic
Applications	Immunohistochemistry (FFPE): 1-2ug/ml for 30 min at RT
Limitations	This SCFR Antibody C117/370 / Stem Cell Factor Receptor Antibody is available for research use only.



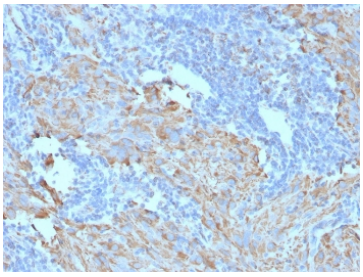
SCFR Antibody C117/370 in GIST Spindle Cells IHC. Immunohistochemistry staining of FFPE human gastrointestinal stromal tumor (GIST) tissue with SCFR Antibody clone C117/370. Strong brown immunoreactivity is observed throughout the tumor-cell population, with staining clearly distinguishable from the hematoxylin-counterstained nuclei. The robust signal in this highly relevant KIT-associated tumor demonstrates detection of endogenous CD117 and supports tissue-based use of the Stem Cell Factor Receptor Antibody.



SCFR Antibody C117/370 Purity by SDS-PAGE. SDS-PAGE analysis of 2 ug purified, BSA-free SCFR Antibody clone C117/370 under reducing (R) and non-reducing (NR) conditions. Under reducing conditions, the antibody resolves into the expected immunoglobulin heavy- and light-chain bands near approximately 50 and 25 kDa, while the non-reduced antibody migrates predominantly as an intact higher-molecular-weight species. The migration pattern demonstrates the integrity and purity of the Stem Cell Factor Receptor Antibody preparation.



SCFR Antibody C117/370 in GIST Tumor Tissue IHC. Immunohistochemistry staining of a second FFPE human gastrointestinal stromal tumor specimen with SCFR Antibody clone C117/370. Prominent brown immunoreactivity is present across the neoplastic cell population, with strong staining readily distinguishable from the nuclear counterstain. This independent GIST specimen demonstrates reproducible recognition of KIT/CD117 and reinforces the IHC performance of the Stem Cell Factor Receptor Antibody.



SCFR Antibody C117/370 in GIST Neoplastic Cells IHC. Immunohistochemistry staining of an additional FFPE human gastrointestinal stromal tumor specimen with SCFR Antibody clone C117/370. Intense brown immunoreactivity is visible throughout broad regions of the tumor, producing strong contrast with the blue nuclear counterstain. Consistent KIT detection across multiple GIST specimens provides further tissue validation for the Stem Cell Factor Receptor Antibody.

Description

SCFR Antibody C117/370 / Stem Cell Factor Receptor Antibody recognizes KIT, a receptor tyrosine kinase widely known as c-Kit, CD117 and the stem cell factor receptor. KIT is a member of the type III receptor tyrosine kinase family and contains an extracellular ligand-binding region, a single transmembrane segment and an intracellular split kinase domain. Interaction with its ligand, stem cell factor, initiates signaling involved in cellular proliferation, survival, differentiation and migration.

Stem cell factor binding promotes KIT receptor dimerization and activation of the intracellular kinase domain. Subsequent phosphorylation creates docking sites for signaling proteins that connect KIT with pathways including PI3K/AKT and RAS/MAPK. These signaling networks allow the receptor to coordinate cellular responses to extracellular growth signals and are tightly regulated under normal physiological conditions.

KIT has important functions in hematopoietic progenitor cells, mast cells, melanocytes and germ cells. Stem cell factor receptor signaling contributes to hematopoiesis, mast cell development, pigmentation and gametogenesis. CD117 expression is also widely used to characterize hematopoietic and progenitor cell populations, linking KIT biology with both developmental research and cellular marker studies.

Altered KIT expression or kinase activity has substantial relevance to cancer biology. Activating KIT mutations are particularly associated with gastrointestinal stromal tumors and can produce constitutive receptor signaling independent of normal ligand regulation. KIT alterations are also investigated in several hematologic and other malignancies, and the receptor is an established molecular target for kinase inhibitors.

NSJ Bioreagents offers SCFR Antibody clone C117/370 for research into KIT expression and receptor biology. The Stem Cell Factor Receptor Antibody terminology emphasizes the physiological ligand-receptor relationship, while SCFR provides a concise alternative name for KIT/CD117.

An SCFR Antibody provides a reagent for investigating KIT expression, stem cell factor receptor biology, hematopoietic development and disease-associated receptor signaling.

For a Protein Microarray Validated CD117 antibody with GIST IHC validation, see our CD117 Antibody C117/6347 / c-Kit Monoclonal Antibody.

Application Notes

The concentration stated for each application is a general starting point. Variations in protocols, secondaries and substrates may require the SCFR Antibody C117/370 / Stem Cell Factor Receptor Antibody to be titered up or down for optimal performance.

1. Staining of formalin-fixed tissues requires boiling tissue sections in pH 9 10mM Tris with 1mM EDTA for 10-20 min followed by cooling at RT for 20 minutes.

Immunogen

Recombinant human protein was used as the immunogen for this SCFR Antibody C117/370.

Storage

Store the SCFR Antibody C117/370 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Stem Cell Factor Receptor antibody, CD117 antibody, c-Kit antibody, KIT antibody, Steel Factor Receptor antibody, Mast Cell Growth Factor Receptor antibody

References (2)

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