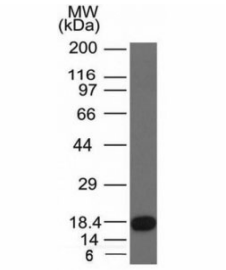
c-Kit Antibody KIT/982 / KIT Monoclonal Antibody [clone KIT/982] (V2648)

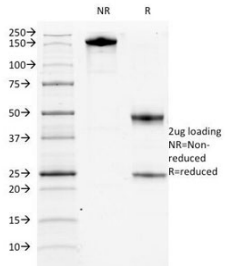
Catalog No.	Formulation	Size
V2648-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V2648-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V2648SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug

Bulk quote request

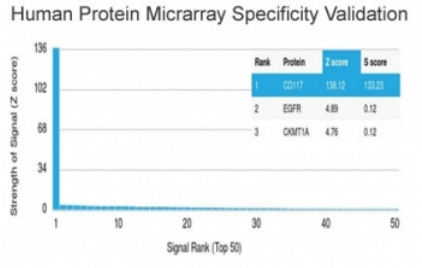
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	KIT/982
Purity	Protein G affinity chromatography
UniProt	P10721
Localization	Cell surface and cytoplasmic
Applications	Western blot: 0.5-1ug/ml for 2 hours at RT
Limitations	This c-Kit Antibody KIT/982 / KIT Monoclonal Antibody is available for research use only.



c-Kit Antibody KIT/982 Recombinant Protein WB. Western blot testing of a recombinant human KIT protein fragment with c-Kit Antibody clone KIT/982. A strong, discrete band is detected at approximately 18 kDa, consistent with the size of the recombinant fragment used for this assay. Little additional reactivity is visible, demonstrating clean recognition of the KIT-derived protein and supporting the western blot performance of the KIT Monoclonal Antibody.



c-Kit Antibody KIT/982 Purity by SDS-PAGE. SDS-PAGE analysis of 2 ug purified, BSA-free c-Kit Antibody clone KIT/982 under non-reducing (NR) and reducing (R) conditions. The non-reduced antibody migrates predominantly as an intact species near approximately 150 kDa, while reduction produces the expected immunoglobulin heavy- and light-chain bands near approximately 50 and 25 kDa. The clean migration pattern demonstrates the integrity and purity of the KIT Monoclonal Antibody preparation.



c-Kit Antibody KIT/982 Protein Microarray Validation. Protein microarray analysis of c-Kit Antibody clone KIT/982 using a HuProt array containing more than 19,000 full-length human proteins. KIT produces the dominant array signal with a Z-score of 49.8 and an S-score of 47.8, showing exceptional separation from the next-highest protein signal. The Z-score represents target signal in standard deviations above the array mean, while the S-score measures the difference between the target and next-highest Z-scores. These results demonstrate excellent specificity and support the KIT Monoclonal Antibody as Protein Microarray Validated.

Description

c-Kit Antibody KIT/982 / KIT Monoclonal Antibody recognizes KIT, a receptor tyrosine kinase also known as CD117 and the stem cell factor receptor. KIT belongs to the type III receptor tyrosine kinase family, which also includes related receptors such as PDGF receptors and FLT3. The KIT protein contains an extracellular ligand-binding region, a single transmembrane segment and an intracellular split tyrosine kinase domain that mediates signal transduction following receptor activation.

Stem cell factor is the principal ligand for KIT. Ligand binding promotes receptor dimerization and activation of the intracellular kinase domain, followed by phosphorylation of specific tyrosine residues. Activated KIT recruits signaling proteins that connect the receptor with pathways including PI3K/AKT and RAS/MAPK. These signaling networks regulate cellular proliferation, survival, differentiation and migration in several developmentally important cell populations.

KIT is particularly important in hematopoietic progenitor cells, mast cells, melanocytes and germ cells. Normal KIT signaling contributes to hematopoiesis, mast cell development, pigmentation and gametogenesis. The CD117 designation is also widely used when identifying and characterizing hematopoietic and progenitor cell populations, making KIT an extensively investigated marker in developmental and cellular biology.

Abnormal KIT activity has important roles in cancer biology. Activating mutations can produce ligand-independent kinase signaling and occur prominently in gastrointestinal stromal tumors as well as subsets of other malignancies. KIT expression and signaling are consequently investigated in studies of oncogenic receptor activation, tumor biology and responses to targeted kinase inhibitors.

NSJ Bioreagents offers c-Kit Antibody clone KIT/982 for research into KIT expression and stem cell factor receptor biology. The KIT Monoclonal Antibody terminology reflects the official gene designation and provides a complementary search term to the widely used c-Kit protein name.

A c-Kit Antibody provides a reagent for investigating KIT expression, stem cell factor signaling, hematopoietic development and receptor biology in normal and disease-associated processes.

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

Application Notes

Optimal dilution of the c-Kit Antibody KIT/982 / KIT Monoclonal Antibody should be determined by the researcher.

Immunogen

A recombinant human fragment around amino acids 100-300 was used as the immunogen for the c-Kit Antibody KIT/982.

Storage

Store the c-Kit Antibody KIT/982 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

KIT antibody, CD117 antibody, Stem Cell Factor Receptor antibody, SCFR antibody, Mast/Stem Cell Growth Factor Receptor Kit antibody

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