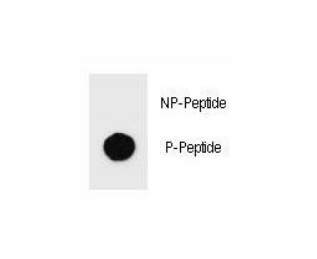
Phospho-c-Kit pT274 Antibody / Phospho-Stem Cell Factor Receptor Antibody (F48712)

Catalog No.	Formulation	Size
F48712-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F48712-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	P10721
Applications	Dot blot: 1:500
Limitations	This Phospho-c-Kit pT274 Antibody / Phospho-Stem Cell Factor Receptor Antibody is available for research use only.



Phospho-c-Kit pT274 Antibody Phosphopeptide Specificity Dot Blot. Dot blot analysis of Phospho-c-Kit pT274 Antibody using 50 ng per dot of non-phosphorylated peptide (NP-Peptide) and c-Kit pT274 phosphopeptide (P-Peptide). A strong signal is detected with the phosphorylated peptide, while the corresponding non-phosphorylated peptide shows no appreciable signal. The clear discrimination between the matched peptide pair demonstrates phosphorylation-dependent recognition of the Thr274 epitope and supports the phospho-specificity of the Phospho-Stem Cell Factor Receptor Antibody.

Description

Phospho-c-Kit pT274 Antibody / Phospho-Stem Cell Factor Receptor Antibody recognizes KIT when phosphorylated at threonine 274. KIT, also known as c-Kit, CD117 and SCFR, is a type III receptor tyrosine kinase that mediates cellular responses to stem cell factor. KIT signaling regulates processes including cellular proliferation, survival, differentiation and migration and has important roles in hematopoietic, mast cell, melanocyte and germ cell biology.

KIT consists of an extracellular ligand-binding region, a single transmembrane segment and an intracellular split tyrosine kinase domain. Stem cell factor binding promotes receptor dimerization and activation, leading to phosphorylation-dependent changes that regulate receptor activity and downstream signaling. Activated KIT communicates with pathways including PI3K/AKT and RAS/MAPK, coordinating cellular responses to extracellular growth signals.

Threonine 274 is located within the extracellular region of KIT. Phosphorylation at this site represents a distinct post-translational modification from the extensively characterized intracellular tyrosine phosphorylation associated with kinase activation. Detection of pT274 therefore allows researchers to examine a specific phosphorylated population of KIT independently of total receptor abundance. A Phospho-Stem Cell Factor Receptor Antibody can complement total KIT detection when investigating receptor phosphorylation and post-translational regulation.

KIT biology is important to studies of hematopoiesis, mast cell development, pigmentation and gametogenesis. Altered KIT expression and signaling are also extensively investigated in cancer, particularly gastrointestinal stromal tumors and other malignancies involving activating KIT mutations or abnormal receptor activity. Site-specific phosphorylation reagents provide an additional approach for examining the regulation of this biologically important receptor.

NSJ Bioreagents offers this phospho-specific reagent for research into KIT phosphorylation and stem cell factor receptor biology. The Phospho-c-Kit pT274 Antibody terminology identifies both the receptor and targeted phosphorylation site, while Phospho-Stem Cell Factor Receptor Antibody provides the expanded functional designation for KIT.

A Phospho-c-Kit pT274 Antibody provides a phosphorylation-specific reagent for investigating KIT phosphorylation at Thr274, while a Phospho-Stem Cell Factor Receptor Antibody supports research into KIT regulation and stem cell factor receptor biology.

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

Application Notes

Titration of the Phospho-c-Kit pT274 Antibody / Phospho-Stem Cell Factor Receptor Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This Phospho-c-Kit pT274 Antibody was produced from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding pT274 of human c-Kit.

Storage

Aliquot the Phospho-c-Kit pT274 Antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Phospho-Stem Cell Factor Receptor antibody, KIT pT274 antibody, Phospho-KIT antibody, Phospho-CD117 antibody, Phospho-SCFR antibody

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