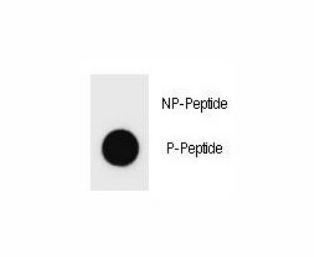
Phospho-KIT pY578 Antibody / Phospho-SCFR Polyclonal Antibody (F48719)

Catalog No.	Formulation	Size
F48719-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F48719-0.08ML	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
Predicted Reactivity	Mouse, Bovine, Pig, Chicken
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-KIT pY578 Antibody / Phospho-SCFR Polyclonal Antibody is available for research use only.



Phospho-KIT pY578 Antibody Phosphopeptide Specificity Dot Blot. Dot blot analysis of Phospho-KIT pY578 Antibody using 50 ng per dot of non-phosphorylated peptide (NP-Peptide) and KIT pY578 phosphopeptide (P-Peptide). The image shows strong reactivity with the phosphorylated peptide and no appreciable signal with the corresponding non-phosphorylated peptide. This clear discrimination between the matched peptides demonstrates phosphorylation-dependent recognition of the Tyr578 epitope and supports the phospho-specificity of the Phospho-SCFR Polyclonal Antibody.

Description

Phospho-KIT pY578 Antibody / Phospho-SCFR Polyclonal Antibody recognizes KIT when phosphorylated at tyrosine 578. KIT, also known as c-Kit, CD117 and the stem cell factor receptor (SCFR), is a type III receptor tyrosine kinase involved in cellular proliferation, survival, differentiation and migration. Binding of stem cell factor promotes receptor

dimerization and activation, initiating phosphorylation-dependent events that regulate KIT signaling.

KIT contains an extracellular ligand-binding region, a single transmembrane segment and an intracellular split tyrosine kinase domain. Receptor activation results in phosphorylation at multiple tyrosine residues, creating regulatory sites that influence kinase activity and interactions with intracellular signaling proteins. KIT signaling connects with pathways including PI3K/AKT and RAS/MAPK, allowing stem cell factor to regulate diverse cellular responses.

Tyrosine 578 is located within the intracellular juxtamembrane region of KIT. Phosphorylation within this regulatory region is associated with changes in receptor signaling and provides a site-specific measure distinct from total KIT abundance. A Phospho-SCFR Polyclonal Antibody can therefore complement total-protein detection when investigating changes in KIT phosphorylation state and receptor regulation.

KIT signaling has important roles in hematopoietic progenitor cells, mast cells, melanocytes and germ cells. Altered KIT activity is also extensively investigated in cancer biology, particularly in gastrointestinal stromal tumors and other malignancies involving abnormal KIT expression or activating mutations. Phosphorylation-specific reagents provide a means of examining individual regulatory events within this signaling system.

NSJ Bioreagents offers this phospho-specific reagent for research into KIT regulation and stem cell factor receptor signaling. The Phospho-KIT pY578 Antibody terminology identifies the receptor and targeted phosphorylation site, while Phospho-SCFR Polyclonal Antibody incorporates the functional stem cell factor receptor designation.

A Phospho-KIT pY578 Antibody provides a phosphorylation-specific reagent for investigating KIT phosphorylation at Tyr578, while a Phospho-SCFR Polyclonal Antibody supports research into stem cell factor receptor regulation and signaling.

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-KIT pY578 Antibody / Phospho-SCFR Polyclonal Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This Phospho-KIT pY578 Antibody was produced from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding pY578 of human c-Kit.

Storage

Aliquot the Phospho-KIT pY578 Antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Phospho-SCFR antibody, c-Kit pY578 antibody, Phospho-c-Kit antibody, Phospho-CD117 antibody, Phospho-Stem Cell Factor Receptor antibody

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