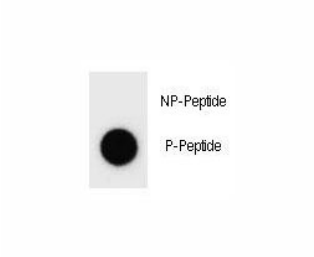
Phospho-c-Kit pY823 Antibody / Phospho-CD117 Polyclonal Antibody (F48722)

Catalog No.	Formulation	Size
F48722-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F48722-0.08ML	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	Bovine, Pig
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 pY823 Antibody / Phospho-CD117 Polyclonal Antibody is available for research use only.



Phospho-c-Kit pY823 Antibody Phosphopeptide Specificity Dot Blot. Dot blot analysis of Phospho-c-Kit pY823 Antibody using 50 ng per dot of non-phosphorylated peptide (NP-Peptide) and pY823 phosphopeptide (P-Peptide). The image shows strong signal from the phosphorylated peptide and no appreciable signal from the corresponding non-phosphorylated peptide. This discrimination between the matched peptide pair demonstrates phosphorylation-dependent recognition of the Tyr823 epitope and supports the phospho-specificity of the Phospho-CD117 Polyclonal Antibody.

Description

Phospho-c-Kit pY823 Antibody / Phospho-CD117 Polyclonal Antibody recognizes KIT when phosphorylated at tyrosine 823. KIT, also known as c-Kit, CD117 and the stem cell factor receptor, is a type III receptor tyrosine kinase involved in cellular proliferation, survival, differentiation and migration. Stem cell factor binding promotes receptor dimerization and

activation, initiating phosphorylation-dependent events that regulate receptor activity and downstream signaling.

KIT contains an extracellular ligand-binding region, a single transmembrane segment and an intracellular split tyrosine kinase domain. Following ligand-induced activation, multiple tyrosine residues become phosphorylated and participate in regulating kinase activity or interactions with intracellular signaling proteins. These events connect KIT with pathways including PI3K/AKT and RAS/MAPK and help coordinate cellular responses to stem cell factor.

Tyrosine 823 is located within the intracellular kinase domain of KIT. Phosphorylation at this site is associated with regulation of receptor kinase activity, making pY823 a useful site for examining KIT phosphorylation independently of total receptor abundance. A Phospho-CD117 Polyclonal Antibody can therefore complement total KIT detection when investigating receptor activation, kinase regulation and phosphorylation-dependent signaling.

KIT signaling has important roles in hematopoietic progenitor cells, mast cells, melanocytes and germ cells. Altered KIT signaling is also extensively studied in cancer biology, particularly in gastrointestinal stromal tumors and other malignancies involving abnormal KIT expression or activating mutations. Site-specific phospho detection provides an additional approach for investigating the molecular regulation of this receptor.

NSJ Bioreagents offers this phospho-specific reagent for research into KIT phosphorylation and stem cell factor receptor signaling. The Phospho-c-Kit pY823 Antibody terminology identifies the receptor and targeted phosphorylation site, while Phospho-CD117 Polyclonal Antibody combines the widely recognized CD117 designation with antibody clonality.

A Phospho-c-Kit pY823 Antibody provides a phosphorylation-specific reagent for investigating KIT phosphorylation at Tyr823, while a Phospho-CD117 Polyclonal Antibody supports research into KIT regulation and stem cell factor 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

Titration of the Phospho-c-Kit pY823 Antibody / Phospho-CD117 Polyclonal Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This Phospho-c-Kit pY823 Antibody was produced from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding pY823 of human c-Kit.

Storage

Aliquot the Phospho-c-Kit pY823 Antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Phospho-CD117 antibody, KIT pY823 antibody, Phospho-KIT antibody, Phospho-SCFR antibody, Phospho-Stem Cell Factor Receptor antibody

Copyright © NSJ Bioreagents. All rights reserved.