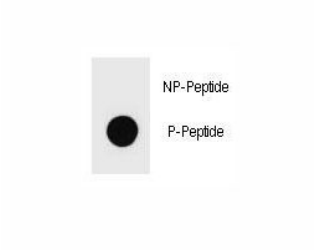
Phospho-KIT pS821 Antibody / Phospho-SCFR Antibody (F48711)

Catalog No.	Formulation	Size
F48711-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F48711-0.08ML	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-KIT pS821 Antibody / Phospho-SCFR Antibody is available for research use only.



Phospho-KIT pS821 Antibody Phosphopeptide Specificity Dot Blot. Dot blot analysis of Phospho-KIT pS821 Antibody using 50 ng per dot of non-phosphorylated peptide (NP-Peptide) and KIT pS821 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 Ser821 epitope and supports the phospho-specificity of the Phospho-SCFR Antibody.

Description

Phospho-KIT pS821 Antibody / Phospho-SCFR Antibody recognizes KIT when phosphorylated at serine 821. 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 regulatory events that control KIT activity and downstream signaling.

KIT contains an extracellular ligand-binding region, a single transmembrane segment and an intracellular split kinase domain. Activated KIT interacts with intracellular signaling proteins and regulates pathways including PI3K/AKT and RAS/MAPK. In addition to the well-characterized tyrosine phosphorylation associated with receptor activation, phosphorylation of serine residues can contribute to the broader post-translational regulation of KIT.

Serine 821 is located within the intracellular kinase region of KIT. Monitoring phosphorylation at this residue provides a means of examining a specific post-translationally modified population of the receptor rather than measuring total KIT abundance. A Phospho-SCFR Antibody can therefore complement antibodies against total KIT when investigating changes in receptor phosphorylation state and signaling regulation.

KIT signaling is important in hematopoietic progenitor cells, mast cells, melanocytes and germ cells and contributes to normal hematopoiesis, mast cell development, pigmentation and gametogenesis. Dysregulated KIT signaling is also extensively investigated in cancer, particularly in gastrointestinal stromal tumors and other malignancies involving altered KIT expression, mutation or kinase activity.

NSJ Bioreagents offers this phospho-specific reagent for research into KIT regulation and stem cell factor receptor signaling. The Phospho-KIT pS821 Antibody terminology identifies the receptor and targeted phosphorylation site, while Phospho-SCFR Antibody emphasizes the receptor's functional relationship with stem cell factor.

A Phospho-KIT pS821 Antibody provides a phosphorylation-specific reagent for investigating KIT phosphorylation at Ser821, while a Phospho-SCFR 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 pS821 Antibody / Phospho-SCFR Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This Phospho-KIT pS821 Antibody was produced from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding pS821 of human c-Kit.

Storage

Aliquot the Phospho-KIT pS821 Antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Phospho-SCFR antibody, KIT pS821 antibody, Phospho-c-Kit antibody, Phospho-CD117 antibody, Phospho-Stem Cell Factor Receptor antibody

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