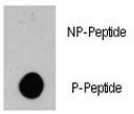
Phospho-BRAF S445 Antibody / BRAF pS445 Antibody (F48514)

Catalog No.	Formulation	Size
F48514-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F48514-0.08ML	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, Chicken
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	P15056
Applications	Dot blot: 1:500
Limitations	This Phospho-BRAF S445 Antibody / BRAF pS445 Antibody is available for research use only.



Phospho-BRAF S445 Antibody Detection by Phosphopeptide Dot Blot. Dot blot analysis using Phospho-BRAF S445 Antibody demonstrates preferential recognition of the BRAF phosphopeptide containing phosphorylated Ser445 compared with the corresponding non-phosphorylated peptide, supporting phosphorylation-specific recognition of BRAF pS445.

Description

Phospho-BRAF S445 Antibody / BRAF pS445 Antibody detects BRAF phosphorylated at serine 445. BRAF is a serine/threonine protein kinase and central component of the RAS-RAF-MEK-ERK signaling pathway. Through activation of MEK and downstream ERK proteins, BRAF helps regulate cellular proliferation, differentiation, survival and responses to extracellular signaling cues.

Ser445 is an important regulatory phosphorylation site within BRAF. Unlike the corresponding Ser338 site of CRAF, BRAF S445 exhibits substantial constitutive phosphorylation. Phosphorylation at this residue helps reduce interaction between the regulatory and catalytic regions of BRAF, thereby relieving autoinhibition and priming the kinase for activation. Experimental mutation of S445 has been shown to increase BRAF autoinhibition and reduce basal kinase activity.

A BRAF pS445 Antibody provides a phosphorylation-specific approach for studying this regulatory state rather than measuring total BRAF abundance alone. Although S445 phosphorylation is often described as constitutive, its level can also be modulated in particular biological contexts. Changes in BRAF S445 phosphorylation have been linked to signaling through proteins such as PAK1 and AKT, providing a connection between BRAF regulation and broader signaling networks.

BRAF regulation is particularly important in cancer biology, where mutations and abnormal pathway activity can produce sustained MEK-ERK signaling. Analysis of individual BRAF phosphorylation sites can complement total BRAF measurements when investigating kinase regulation, pathway activation and signaling responses.

For additional phosphosite-specific BRAF research, see our Phospho-BRAF T401 Antibody IBE-2 / BRAF pT401 Antibody page. Researchers studying phosphorylation across other signaling proteins can also explore our Phospho Antibody â€“ Phosphorylation Specific Antibodies page. NSJ Bioreagents provides antibodies for research into protein phosphorylation and signal transduction. A Phospho-BRAF S445 Antibody provides a research tool for investigating BRAF Ser445 phosphorylation and its role in RAF-MAPK pathway regulation.

For additional phosphosite-specific BRAF research, see our Phospho-BRAF T401 Antibody IBE-2 / BRAF pT401 Antibody page.

Application Notes

Titration of the Phospho-BRAF S445 Antibody / BRAF pS445 Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This Phospho-BRAF S445 Antibody was produced from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding pS445 of human BRAF.

Storage

Aliquot the Phospho-BRAF S445 Antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

BRAF pS445 antibody, BRAF phospho-S445 antibody, BRAF phospho-Ser445 antibody, Phospho-BRAF Ser445 antibody, B-Raf pS445 antibody, B-Raf phospho-Ser445 antibody

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