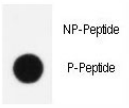
Phospho-KLF4 (S245) Antibody / Phosphorylated KLF4 Antibody (F48604)

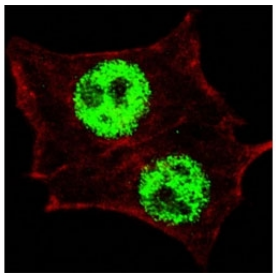
Catalog No.	Formulation	Size
F48604-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F48604-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

Availability	1-3 business days
Species Reactivity	Human
Predicted Reactivity	Mouse
Format	Antigen affinity purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity
UniProt	O43474
Applications	Immunofluorescence: 1:10-1:50 Dot blot: 1:500
Limitations	This Phospho-KLF4 (S245) Antibody / Phosphorylated KLF4 Antibody is available for research use only.



Phospho-KLF4 (S245) Antibody Peptide Specificity Dot Blot. Dot blot analysis demonstrating the specificity of Phospho-KLF4 (S245) Antibody using 50 ng of phosphorylated or non-phosphorylated KLF4 peptide per dot. Strong immunoreactivity was observed with the phosphorylated peptide, while no detectable binding was seen with the corresponding non-phosphorylated peptide, confirming phosphorylation-dependent recognition of KLF4 at serine 245. This Phospho-KLF4 (S245) Antibody is suitable for studies of KLF4 phosphorylation, kinase signaling, post-translational regulation, and transcription factor activation.



Phospho-KLF4 (S245) Antibody HeLa Cell IF. Immunofluorescent staining of fixed and permeabilized human HeLa cells using Phospho-KLF4 (S245) Antibody at a 1:200 dilution. Phosphorylated KLF4 immunoreactivity (green) is specifically localized to the nuclei, with minimal staining in the nucleoli or cytoplasm, consistent with phosphorylation of the active nuclear transcription factor. The actin cytoskeleton is shown in red to provide cellular context. This Phospho-KLF4 (S245) Antibody is suitable for studies of KLF4 phosphorylation, nuclear signaling, transcription factor regulation, and kinase-mediated cellular signaling.

Description

Phospho-KLF4 (S245) Antibody recognizes KLF4 phosphorylated at serine 245, allowing researchers to investigate signaling-dependent regulation of this zinc finger transcription factor. Phosphorylation is an important post-translational modification that can influence KLF4 stability, protein interactions, DNA binding, and transcriptional activity. Detecting phosphorylation at this residue provides insight into how extracellular signals and intracellular kinase pathways regulate KLF4 function under normal and disease conditions.

KLF4 regulates gene expression involved in epithelial differentiation, tissue homeostasis, stem cell maintenance, cellular reprogramming, proliferation, and apoptosis. As one of the Yamanaka factors required for induced pluripotent stem cell generation, KLF4 has become an important target in regenerative medicine and developmental biology. The phosphorylation status of KLF4 can change in response to growth factors, cellular stress, and signaling cascades, making phospho-specific detection valuable for studying dynamic changes in transcription factor activity.

Aberrant KLF4 signaling has been linked to cancer, inflammatory disorders, and tissue injury, where phosphorylation may alter its biological activity in a context-dependent manner. Comparing phosphorylated KLF4 with total KLF4 expression can help distinguish changes in protein activation from changes in overall protein abundance, providing a more complete understanding of signaling mechanisms.

An Phospho-KLF4 (S245) Antibody is a valuable research reagent for investigating kinase signaling, transcription factor regulation, stem cell biology, epithelial differentiation, cancer biology, and post-translational regulation of KLF4. Researchers frequently use Phospho-KLF4 (S245) Antibody together with total KLF4 antibodies to characterize phosphorylation-dependent regulation of KLF4 function.

Learn more about KLF4 biology and its role as a stem cell-associated transcription factor by visiting our KLF4 Antibody / Stem Cell Transcription Factor Antibody page.

Application Notes

Titration of the Phospho-KLF4 (S245) Antibody / Phosphorylated KLF4 Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

This Phospho-KLF4 (S245) Antibody was produced from rabbits immunized with a KLH conjugated synthetic phosphopeptide corresponding to amino acid residues surrounding pS245 of human KLF4.

Storage

Aliquot the Phospho-KLF4 (S245) Antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

Alternate Names

Phospho-KLF4 (S245) antibody, Phosphorylated KLF4 antibody, Phospho-Kruppel-like Factor 4 antibody, p-KLF4 (S245) antibody

Copyright © NSJ Bioreagents. All rights reserved.