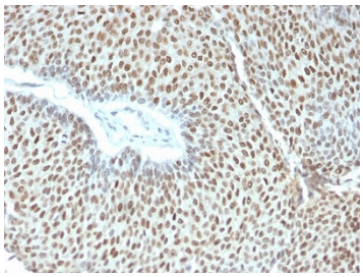
Phospho-JUN Antibody C-J 4C4/1 / Phospho-c-Jun T91/T93 Antibody [clone C-J 4C4/1] (V7427)

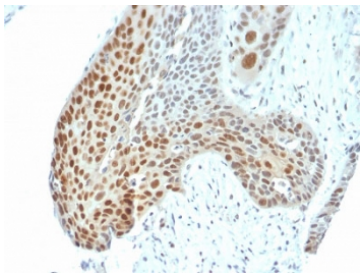
Catalog No.	Formulation	Size
V7427-100UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	100 ug
V7427-20UG	0.2 mg/ml in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide	20 ug
V7427SAF-100UG	1 mg/ml in 1X PBS; BSA free, sodium azide free	100 ug
V7427IHC-7ML	Prediluted in 1X PBS with 0.1 mg/ml BSA (US sourced) and 0.05% sodium azide; *For IHC use only*	7 ml

Bulk quote request

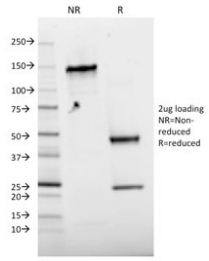
Availability	1-3 business days
Species Reactivity	Human
Format	Purified
Host	Mouse
Clonality	Monoclonal (mouse origin)
Isotype	Mouse IgG1, kappa
Clone Name	C-J 4C4/1
Purity	Protein G affinity chromatography
UniProt	P05412
Localization	Nuclear
Applications	Flow cytometry: 0.5-1ug/10^6 cells Immunofluorescence: 1-2ug/ml Western blot: 0.5-1ug/ml Immunohistochemistry (FFPE): 0.5-1ug/ml for 30 min at RT
Limitations	This Phospho-JUN Antibody C-J 4C4/1 / Phospho-c-Jun T91/T93 Antibody is available for research use only.



Phospho-JUN Antibody C-J 4C4/1 Shows Nuclear Staining in Cervical Tumor IHC. Immunohistochemistry testing of FFPE human cervical tumor tissue with Phospho-JUN Antibody clone C-J 4C4/1. HIER was performed by boiling tissue sections in pH 6, 10 mM citrate buffer for 10-20 min followed by cooling at RT for 20 min. Strong brown staining is localized predominantly to tumor cell nuclei across the field, with comparatively little cytoplasmic signal. The widespread nuclear labeling demonstrates detection of phosphorylated JUN in cervical tumor tissue using this Phospho-c-Jun T91/T93 Antibody.



Phospho-JUN Antibody C-J 4C4/1 in Human Cervical Tumor IHC. Immunohistochemistry testing of FFPE human cervical tumor tissue with Phospho-JUN Antibody clone C-J 4C4/1. HIER was performed by boiling tissue sections in pH 6, 10 mM citrate buffer for 10-20 min followed by cooling at RT for 20 min. The image shows strong predominantly nuclear brown staining throughout the squamous tumor cell population, with comparatively little staining in the surrounding stromal tissue. The nuclear localization is consistent with detection of phosphorylated JUN and demonstrates tissue staining with this Phospho-c-Jun T91/T93 Antibody.



Purified Phospho-JUN Antibody C-J 4C4/1 SDS-PAGE. SDS-PAGE analysis of purified, BSA-free Phospho-JUN Antibody clone C-J 4C4/1 under non-reducing (NR) and reducing (R) conditions with a 2 ug antibody load. The non-reduced preparation shows the predominant intact antibody at approximately 150 kDa. Following reduction, the preparation resolves into immunoglobulin heavy and light chains at approximately 50 kDa and 25 kDa, respectively. The expected electrophoretic profile provides a quality-control assessment of the integrity and purity of this Phospho-c-Jun T91/T93 Antibody preparation.

Description

Phospho-JUN Antibody C-J 4C4/1 / Phospho-c-Jun T91/T93 Antibody recognizes the phosphorylated form of JUN associated with threonine 91 and threonine 93. JUN, commonly called c-Jun, is a sequence-specific transcription factor and a major component of activator protein-1 (AP-1) transcription factor complexes. AP-1 proteins regulate gene-expression programs involved in proliferation, differentiation, survival, apoptosis, inflammation, and cellular responses to environmental stress.

JUN contains an N-terminal transcriptional activation domain and a C-terminal basic leucine zipper region responsible for DNA binding and dimerization. It can form homodimers or heterodimers with other AP-1 family proteins, particularly FOS family members. These complexes bind AP-1-responsive DNA elements and recruit transcriptional regulatory machinery to alter expression of downstream genes. JUN activity is extensively controlled by post-translational modification, making phosphorylation-specific reagents useful for distinguishing particular signaling states from total protein abundance.

Phosphorylation of JUN can occur at several regulatory residues. Thr91 and Thr93 are located within the N-terminal region of the protein and have been investigated as regulatory phosphorylation sites associated with stress-responsive signaling. Their modification can occur downstream of kinase pathways that respond to extracellular stimuli and cellular stress. A Phospho-JUN Antibody directed toward these sites therefore provides a means of examining this specific phosphorylation state independently of measurements of total JUN protein.

JUN signaling is relevant to numerous biological processes because AP-1 integrates signals originating from growth factors, cytokines, cellular stress, and other extracellular or intracellular stimuli. Dysregulated JUN and AP-1 activity has also been investigated in cancer, inflammatory processes, tissue remodeling, and altered cell survival. Measuring phosphorylation at defined regulatory residues can help researchers investigate how signaling pathways modify JUN during these biological responses.

Because phosphorylation is dynamic and site-specific, results obtained with a phospho-specific antibody provide different information from those obtained with an antibody recognizing total JUN. Experimental interpretation may therefore benefit from evaluating the phosphorylated form alongside total JUN and appropriate pathway controls when changes in phosphorylation state are being investigated. NSJ Bioreagents offers clone C-J 4C4/1 for research involving this defined JUN phosphorylation site.

A Phospho-JUN Antibody such as clone C-J 4C4/1 provides a monoclonal reagent for investigating JUN phosphorylation at Thr91/Thr93, while a Phospho-c-Jun T91/T93 Antibody provides protein-name and site-specific terminology for studies of AP-1 regulation and stress-responsive signaling.

Learn more about c-Jun function in transcriptional regulation, AP-1 signaling, cellular stress responses, and gene expression control on our c-Jun Antibody page.

Application Notes

Optimal dilution of the Phospho-JUN Antibody C-J 4C4/1 / Phospho-c-Jun T91/T93 Antibody should be determined by the researcher.

1. The prediluted format is supplied in a dropper bottle and is optimized for use in IHC. After epitope retrieval step (if required), drip mAb solution onto the tissue section and incubate at RT for 30 min.

Immunogen

The amino acids surrounding phosphorylated T91 and T93 were used as the immunogen for the Phospho-JUN Antibody C-J 4C4/1.

Storage

Store the Phospho-JUN Antibody C-J 4C4/1 at 2-8oC (with azide) or aliquot and store at -20oC or colder (without azide).

Alternate Names

Phospho-c-Jun T91/T93 antibody, phospho-JUN T91/T93 antibody, c-Jun pT91/pT93 antibody, JUN pT91/pT93 antibody, phospho-AP-1 c-Jun antibody

Copyright © NSJ Bioreagents. All rights reserved.