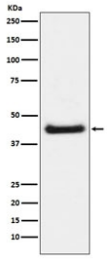
Phospho-c-Jun (pSer63) Antibody / JNK Stress Signaling Marker [clone IGA-10] (RQ5123)

Catalog No.	Formulation	Size
RQ5123	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

Recombinant RABBIT MONOCLONAL

Bulk quote request

Availability	1-2 weeks
Species Reactivity	Human, Mouse
Format	Purified
Host	Rabbit
Clonality	Recombinant Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	IGA-10
Purity	Affinity purified
UniProt	P05412
Applications	Western Blot : 1:500-1:2000
Limitations	This Phospho-c-Jun (pSer63) Antibody / JNK Stress Signaling Marker is available for research use only.



Phospho-c-Jun Antibody NIH3T3 WB. Western blot analysis of mouse NIH3T3 cell lysates untreated (-) or treated (+) with anisomycin using phospho-c-Jun antibody detecting c-Jun phosphorylated at Ser63, clone IGA-10. A band is observed at approximately 36 kDa, consistent with the predicted molecular weight of c-Jun. Signal intensity is increased in the anisomycin-treated sample, consistent with activation of JNK-mediated stress signaling.

Description

Jun proto-oncogene (JUN), commonly referred to as c-Jun, is a major component of the AP-1 transcription factor complex that regulates gene expression in response to cellular stress, cytokines, and growth signals. Phospho-c-Jun (pSer63) Antibody, clone IGA-10, is designed to detect c-Jun phosphorylated at serine 63, a critical regulatory site associated with activation of transcriptional activity downstream of stress-activated signaling pathways. Phosphorylation at Ser63 is a well-

established marker of c-Jun activation and is most commonly mediated by c-Jun N-terminal kinase (JNK). This antibody is part of our full phospho antibody collection which can be explored for additional phosphorylation-specific targets and pathway markers.

c-Jun functions as a transcription factor that controls expression of genes involved in proliferation, apoptosis, inflammation, and stress responses. Under basal conditions, c-Jun exhibits limited transcriptional activity. Upon exposure to stress stimuli such as UV irradiation, oxidative stress, or protein synthesis inhibitors like anisomycin, JNK is activated and phosphorylates c-Jun at Ser63 and Ser73. These phosphorylation events enhance c-Jun transcriptional activity by increasing its ability to bind DNA and recruit co-activators.

Phosphorylation at Ser63 is a key indicator of JNK pathway activation and provides a direct readout of stress-responsive signaling. Unlike total c-Jun detection, which reflects overall protein expression, phospho-specific detection at Ser63 indicates functional activation of the transcription factor. Increased phosphorylation is typically observed following activation of stress signaling pathways and is widely used to monitor JNK activity in experimental systems.

The JNK-c-Jun axis plays an important role in coordinating cellular responses to environmental and intracellular stress. Activation of this pathway can lead to diverse outcomes depending on cellular context, including induction of apoptosis, inflammatory gene expression, or adaptive survival responses. Detection of Ser63 phosphorylation therefore provides insight into pathway activation and downstream transcriptional regulation.

Subcellularly, activated c-Jun is localized primarily in the nucleus, where it functions as a transcription factor regulating gene expression. Immunodetection often reveals nuclear staining patterns consistent with transcriptional activation, although cytoplasmic localization may be observed depending on cellular state and signaling dynamics.

Dysregulation of c-Jun signaling is implicated in cancer, inflammatory diseases, and stress-related cellular dysfunction. Persistent activation of c-Jun can contribute to tumor progression and resistance to apoptosis, while altered JNK signaling impacts immune and stress responses. Monitoring phosphorylation at Ser63 provides a valuable tool for studying these processes and evaluating pathway activity.

Phospho-c-Jun (pSer63) Antibody, clone IGA-10, enables selective detection of activated c-Jun, supporting studies of JNK signaling, stress response pathways, and transcriptional regulation. For analysis of inflammatory signaling activation, see our Phospho-NF-kB p65 (Ser529) Antibody page.

Application Notes

Optimal dilution of the Phospho-c-Jun (pSer63) Antibody / JNK Stress Signaling Marker should be determined by the researcher.

Immunogen

A synthetic peptide specific to human Jun (surrounding phosphorylated S63) was used as the immunogen for the Phospho-c-Jun (pSer63) Antibody.

Storage

Store the Phospho-c-Jun (pSer63) Antibody at -20oC.

Alternate Names

Phospho c Jun antibody, c Jun pSer63 antibody, c Jun Ser63 antibody, JUN phospho antibody, JUN Ser63 antibody, phosphorylated c Jun antibody, AP1 transcription factor phospho antibody, JNK pathway c Jun antibody, stress activated c Jun antibody, clone IGA-10 antibody