

Product Information

Anti-cJun

Produced in Rabbit, Affinity Isolated Antibody

Product Number **J-104**

Product Description

Anti-cJun was produced in rabbit using as immunogen a synthetic peptide corresponding to amino acid residues 91-105 of murine cJun.

Anti-cJun recognizes mouse cJun. By immunoblotting, it detects an ~40 kDa protein representing cJun in NIH-3T3 serum stimulated cells. A smaller band is also detected at ~26 kDa possibly representing a proteolytic fragment of cJun.

Cellular oncogenes, or protooncogenes, have pivotal roles in cellular communication pathways that regulate normal growth, development, and differentiation. The cellular oncogene families fos and jun encode nuclear proteins that can function as transcription factors. The fos family of nuclear oncogenes encode cFos, FosB, (fos-related antigen) Fra1, and Fra2. The jun family member, cJun, is phosphorylated by another kinase termed cJun N-terminal kinase (JNK).

Fos and Jun dimerize to form Activator Protein-1 (AP-1), a transcriptional factor that binds to the TPA (12-O-tetradecanoylphorbol 13-acetate) response element (TRE) of several cellular and viral genes including human collagenase, metallothionein IIa, stromelysin, interleukin 2, SV40 and polyoma. Fos and Jun contain the 'leucine-zipper' motif that allows for dimerization and an adjacent basic domain required for biological activity. The functionally active form of Fos is in a heterodimer with a member of the Jun family. While Jun family members can form functional homodimers, studies indicate that Fos family members do not self-associate and therefore, do not bind DNA on their own. The various dimers differ in their ability to transactivate AP-1 dependent genes.

Reagent

The antibody is supplied as ~200 µg of lyophilized, purified rabbit IgG containing 0.05% sodium azide.

Precautions and Disclaimer

Due to the sodium azide content a material safety data sheet (MSDS) for this product has been sent to the attention of the safety officer of your institution. Consult the MSDS for information regarding hazards and safe handling practices.

Preparation Instructions

Reconstitute with phosphate buffered saline. Care should be taken in reconstitution to ensure that all parts of the lyophilized pellet are dissolved.

Storage/Stability

Prior to reconstitution, store at -20 °C. Reconstituted antibody may be stored at 2-8 °C for up to one month. For prolonged storage, freeze in working aliquots. Storage in "frost-free" freezers is not recommended. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify by centrifugation before use.

Product Profile

By immunoblotting, a working antibody concentration of 10 µg/mL is recommended using NIH-3T3 cells after serum stimulation.

Note: In order to obtain the best results in various techniques and preparations, we recommend determining the optimal working concentrations by titration.

References

1. Angel, P., et al., The role of Jun, Fos and the AP-1 complex in cell-proliferation and transformation. *Biochim. Biophys. Acta*, **1072**, 129-157 (1991).
2. Andersson, G., et al., Activation of the human NPY gene during neuroblastoma cell differentiation: induced transcriptional activities of AP-1 and AP-2. *Cell Growth Differ.*, **5**, 27-36 (1994).

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