

## Product Information

### c-Jun (1-169)-GST

Human, Recombinant  
Expressed in *E. coli*

Product Number **C 5859**

Storage Temperature: -20 °C

### Product Description

c-Jun is a component of the transcription factor AP-1 that binds and activates transcription at TRE/AP-1 elements. The transcriptional activity of c-Jun is regulated by phosphorylation at Ser<sup>63</sup> and Ser<sup>73</sup> by c-Jun-N-terminal kinases (JNKs).<sup>1, 2</sup> Extracellular signals including growth factors, transforming oncoproteins, hydrogen peroxide, and UV irradiation stimulate phosphorylation of c-Jun at Ser<sup>63/73</sup> and activate c-Jun-dependent transcription.<sup>3, 4</sup> Mutation of Ser<sup>63/73</sup> renders c-Jun nonresponsive to mitogenic and stress induced signaling pathways. Phosphorylated c-Jun homodimerizes or forms a heterodimeric complex with c-Fos creating Activator Protein (AP)-1 transcription factor.<sup>3</sup>

c-Jun (1-169)-GST is a recombinant protein in which truncated human c-Jun (amino acid residues 1-169) is tagged at the amino terminus with glutathione-S-transferase (GST). The resulting fusion protein is expressed in *E. coli* and purified by glutathione-agarose chromatography. This product acts as a substrate for SAP1/JNK protein kinases.<sup>5-7</sup> The molecular weight of the fusion protein is 41 kDa.

### Reagent

c-Jun (1-169)-GST fusion protein is supplied as a solution in Tris buffered saline (TBS), pH 8.0, containing 25 mM glutathione, 10 mM 2-mercaptoethanol and 50% glycerol. Each vial contains 33.3 µg of c-Jun-GST fusion protein in 66 µL.

### Precautions and Disclaimer

For research use only. Please consult the Material Safety Data Sheet for handling recommendations before working with this product.

### Storage/Stability

c-Jun (1-169)-GST is stable for one year at -20 °C.

### Product Profile

Purity is 40-50% by SDS-PAGE with Coomassie blue staining.

1 µg of c-Jun (1-169)-GST was phosphorylated using 1 µg of SAPK1α/JNK2 in the presence of 125 µM [<sup>32</sup>P]-ATP.

### References

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4. Derijard, B., et al., JNK1: a protein kinase stimulated by UV light and Ha-Ras that binds and phosphorylates the c-Jun activation domain. *Cell*, **76**, 1025-1037 (1994).
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6. Minden, *et al.*, Selective activation of the JNK signaling cascade and c-JUN transcriptional activity by the small GTPases Rac and Cdc42Hs. *Cell* **81**, 1147-1157, (1995).
7. Wang, X, S., *et al.*, Molecular cloning and characterization of a novel p38 mitogen -activated protein kinase. *J. Biol. Chem.* **272**, 23668-23674, (1997).

NMG 8/01

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