

Human c-Jun Protein (1-79)

Recombinant GST-cJun (1-79)

Catalog# J1100S (100 µg); J1100L (1.0 mg)
Lot#: 309161

Materials Provided:

Each kit contains:

1. GST-cJun: 100µg in 100 µl (J1100S) or 1 mg in 1 ml (J1100L) of 25 mM Tris (pH7.4) containing 0.5 mM EDTA, 50 mM NaCl, 1mM DTT, 10% glycerol at 1.0 mg/ml.
2. 10 X Kinase Buffer: 1.0 ml of 250 mM HEPES buffer (pH7.4) containing 100 mM MgOAc, 0.5 mM ATP, 10 mM DTT.
3. Product Information Sheet.

Formulation: Frozen liquid
Concentration: 1.0 mg/ml
Preservative: 10% Glycerol
MW: 35 kDa
Purity: >90%
Source: Recombinant protein expressed in *E. coli*.

Shipping and Storage:

Shipped frozen on dry ice. Upon receiving, store the product at -80°C until use. If not all the content is to be used, aliquot the original vial and refreeze at -80°C after the initial thaw. Working aliquot can be stored at 2-8 °C for no more than 2 weeks. Avoid repeated freezing and thawing.

Description: GST-cJun(1-79) is a recombinant fusion protein expressed in *E. coli*, consisting of GST(Glutathione-S-Transferase) followed by a Thrombin cleavage (underlined) and the activation domain (amino acid residues 1-79) of human c-Jun. The amino acid sequence of the fusion protein is shown below with JNK phosphorylation sites underlined.

GST-LVPRGS QTAKGETTFY DDALNASFLP
SESGPYGYSN PKILKQSM^TL NLADPVGSLK
PHLRAKNSDL LT^SPDVGLLK LASPELERL

Usage:

GST-cJun (1-79) serves as a highly specific substrate for c-Jun N-terminal kinases due to the presence of a JNK docking region. It's not phosphorylated by ERKs and p38 MAPKs. Therefore, it's a preferred substrate for *in vitro* JNK activity assays. Standard reaction conditions are performed by incubating the following mixture with various amounts of JNK at 30°C for 30 min in a total volume of 40 µl, followed by SDS-PAGE analysis. A standard reaction mixture contains: 5 µl of 10 X Kinase Buffer provided, 2 µCi [³²P]-ATP, 2 µg of GST-cJun protein and various amounts of JNK (e.g. 0.1 µg of recombinant JNK, cell lysates or immunoprecipitates).

Further information:

c-Jun:
Angel, P., et al., 1988, *Nature*, 332: 166-171

GST fusion Vectors:
Guan KL, Dixon JE.1991. *Anal Biochem* 192:262-7
Smith DB, Johnson KS, 1988. *Gene* 67: 31-40

Signal transduction and JNK assay:
Boulikas T., 1995, *Crit. Rev. Eukar. Gene Expr.*, 5: 1-77
Derijard B. et al, 1994, *Cell*, 76: 1025-1037
Derijard B. et al, 1995, *Science*, 267: 682-685
Hibi M., et al., 1993, *Gene Dev*, 7: 2135-2148
Lin A. et al, 1995, *Science*, 268: 286-290
Kyriakis J. M. et al., 1994, *Nature*, 369: 156-160
Minden A. et al, 1994, *Science*, 266: 1719-1722
Robbins D. J., et al, 1993 *J. Biol Chem*, 268: 5097-5106
Sanchez et al., 1994, *Nature*, 372: 794-798
Westwick J. K. et al., 1994, *Proc Natl Acad Sci USA*, 91: 6030-6034
Yan M. et al, 1994, *Nature*, 372: 798-800