SANTA CRUZ BIOTECHNOLOGY, INC.

JNK2 (1-424): sc-4062

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The Power to Question

BACKGROUND

The mitogen-activated protein (MAP) kinases ERK 1 and ERK 2 are proline-directed kinases that are activated through concomitant phosphorylation of tyrosine and threonine residues. A distant member of the MAP kinase family, designated c-Jun NH_2-terminal kinase (JNK1), has been identified. JNK1 is activated by dual phosphorylation at a Thr-Pro-Tyr motif (as compared to the Thr-Glu-Tyr phosphorylation motif characteristic of MAP kinases) during response to ultraviolet (UV) light, and functions to phosphorylate c-Jun at amino terminal serine regulatory sites Ser 63 and Ser 73, which map within the JNK1 transactivation domain. Phosphorylation of these sites in response to UV has previously been shown to result in transcriptional activation of c-Jun. The JNK family also includes JNK2 and JNK3. Isoforms of the JNK family include JNK1α1, JNK1b1, JNK2α1, JNK2β1, and JNK3α1, which represent the p46 isoforms, and JNK1α2, JNK1β2, JNK2α2, JNK2β2, and JNK3β2, which represent the p54 isoforms. These proteins are designated stress-activated protein kinases, or SAPKs.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: MAPK9 (human) mapping to 5q35.3; Mapk9 (mouse) mapping to 11 B1.2.

SOURCE

JNK2 (1-424) is expressed in *E. coli* as a 77 kDa GST tagged fusion protein corresponding to full length (amino acids 1-424) JNK2 (p54α) of human origin.

PRODUCT

JNK2 (1-424) is purified from bacterial lysates (> 98%) by glutathione agarose affinity chromatography; supplied as 50 µg purified protein in PBS containing 5 mM DTT and 50% glycerol.

Also available as a 55 kDa HA-tagged fusion protein, JNK2 (1-424): sc-4062 WB, for use as a Western blotting control; supplied as 10 µg protein in 0.1 ml SDS-PAGE loading buffer.

APPLICATIONS

JNK2 (1-424) is suitable as a substrate for MEK-4.

JNK2 (1-424): sc-4062 WB is recommended as a Western blotting control for sc-572, sc-827 and sc-7345

Molecular Weight of JNK2 p46 isoform: 46 kDa.

Molecular Weight of JNK2 p54 isoform: 54 kDa.

SELECT PRODUCT CITATIONS

1. Liu, S., Wang, H., Wang, X., Lu, L., Gao, N., Rowe, P.S., Hu, B. and Wang, Y. 2009. MEPE/OF45 protects cells from DNA damage induced killing via stabilizing CHK1. Nucleic Acids Res. 37: 7447-7454.
2. Zhang, P., Wang, H., Rowe, P.S., Hu, B. and Wang, Y. 2010. MEPE/OF45 as a new target for sensitizing human tumour cells to DNA damage inducers. Br. J. Cancer 102: 862-866.

STORAGE

Store at -20° C; stable for one year from the date of shipment.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.