



c-Myc (1-262): sc-4084

BACKGROUND

c-Myc-, N-Myc- and L-Myc-encoded proteins function in cell proliferation, differentiation and neoplastic disease. Myc proteins are nuclear proteins with relatively short half lives. Amplification of the c-Myc gene has been found in several types of human tumors including lung, breast and colon carcinomas, while the N-Myc gene has been found amplified in neuroblastomas. The L-Myc gene has been reported to be amplified and expressed at high level in human small cell lung carcinomas. The presence of three sequence motifs in the c-Myc COOH terminus, including the leucine zipper, the helix-loop-helix and a basic region, provide initial evidence for a sequence-specific binding function. A basic region helix-loop-helix leucine zipper motif (bHLH-Zip) protein, designated Max, specifically associates with c-Myc, N-Myc and L-Myc proteins. The Myc-Max complex binds to DNA in a sequence-specific manner under conditions where neither Max nor Myc exhibit appreciable binding. Max can also form heterodimers with at least two additional bHLH-Zip proteins, Mad and Mxi1, and Mad-Max dimers have been shown to repress transcription through interaction with mSin3.

REFERENCES

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- Ayer, D.E., et al. 1995. Mad-Max transcriptional repression is mediated by ternary complex formation with mammalian homologs of yeast repressor Sin3. *Cell* 80: 767-776.

SOURCE

c-Myc (1-262) is expressed in *E. coli* as a 65 kDa tagged fusion protein corresponding to amino acids 1-262 of the amino terminal domain (transactivation domain) of c-Myc of human origin.

PRODUCT

c-Myc (1-262) 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.

APPLICATIONS

c-Myc (1-262) is suitable as a Western blotting control for sc-53854 and sc-373712.

SELECT PRODUCT CITATIONS

- Ioannidis, P., et al. 1999. The polyadenylation inhibitor cordycepin (3'dA) causes a decline in c-Myc mRNA levels without affecting c-Myc protein levels. *Oncogene* 18: 117-125.
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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.