SANTA CRUZ BIOTECHNOLOGY, INC.

Mad 1 (1-221): sc-4086 WB

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

It is now well established that the nature and relative abundance of individual subunits of different classes of transcription factors can positively or negatively regulate levels of gene expression. Myc proteins homodimerize and bind DNA poorly, if at all, at physiological levels. Max is a nuclear localized bHLH-Zip protein initially identified by screening a B cell expression library with the bHLH-Zip region of c-Myc. Max homodimers and the Myc-Max heterodimers bind the sequence CACGTG; however the binding of the heterodimeric complex is stronger than the Max homodimer. The Max gene products have been identified as 21 kDa (Max) and 22 kDa (Max 9) proteins that differ by a 9 amino acid insertion N-terminal to the basic region. In contrast to Myc, which is highly regulated during progression through the cell cycle, Max is highly stable and is much more abundant than Myc. Two members of the bHLH-Zip protein family, designated Mad and Mxi1, homodimerize poorly but form heterodimeric complexes with Max that have opposing functions to Myc-Max heterodimers with respect to regulation of gene expression.

REFERENCES

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7. Ayer, D.E., Kretzner, L., and Eisenman, R.N. 1993. Mad: A heterodimeric partner for Max that antagonizes Myc transcriptional activity. Cell 72: 211-222.
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SOURCE

Mad 1 (1-221) is expressed in *E. coli* as a 27 kDa polyhistidine tagged fusion protein corresponding to amino acids 1-221 representing full length Mad 1 of human origin.

STORAGE

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

PRODUCT

Mad 1 (1-221) is purified from bacterial lysates (>98%) by Ni^{++} affinity chromatography; supplied as 10 µg in 0.1 ml SDS-PAGE loading buffer.

APPLICATIONS

Mad 1 (1-221) is suitable as a Western blotting control for sc-222, sc-766, sc-8012 and sc-8036.

RESEARCH USE

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