

Max (h2): 293T Lysate: sc-114229

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 Max and 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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3. Blackwood, E.M. and Eisenman, R.N. 1991. Max: A helix-loop-helix zipper protein that forms a sequence-specific DNA-binding complex with Myc. *Science* 251: 1211-1217.
4. Prendergast, G.C., Lawe, D. and Ziff, E.B. 1991. Association of Myn, the murine homolog of Max, with c-Myc stimulates methylation-sensitive DNA binding and Ras cotransformation. *Cell* 65: 395-407.
5. Mukherjee, B., Morgenbesser, S.D. and DePinho, R.A. 1992. Myc family oncoproteins function through a common pathway to transform normal cells in culture: cross-interference by Max and transacting dominant mutants. *Genes Dev.* 6: 1480-1492.
6. 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.
7. Zervos, A.S., Gyuris, J. and Brent, R. 1993. Mxi1, a protein that specifically interacts with Max to bind Myc-Max recognition sites. *Cell* 72: 223-232.
8. Amati, B., Brooks, M.W., Levy, N., Littlewood, T.D., Evan, G.I. and Land, H. 1993. Oncogenic activity of the c-Myc protein requires dimerization with Max. *Cell* 72: 233-245.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: MAX (human) mapping to 14q23.3.

PRODUCT

Max (h2): 293T Lysate represents a lysate of human Max transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

Max (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Max antibodies. Recommended use: 10-20 µl per lane.

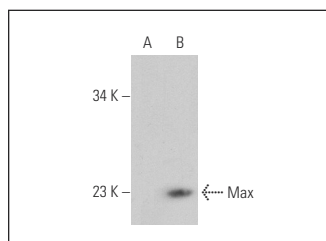
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Max (H-2): sc-8011 is recommended as a positive control antibody for Western Blot analysis of enhanced human Max expression in Max transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



Max (H-2): sc-8011. Western blot analysis of Max expression in non-transfected: sc-117752 (A) and human Max transfected: sc-114229 (B) 293T whole cell lysates.

RESEARCH USE

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