



# SZABO SCANDIC

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## Produktinformation



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Diagnostik & molekulare Diagnostik



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### Zuschläge

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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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# HMG-1 (m): 293T Lysate: sc-120823

## BACKGROUND

High mobility group (HMG) proteins 1 and 2 are ubiquitous non-histone components of chromatin. Evidence suggests that the binding of HMG proteins to DNA induces alterations in the DNA architecture including DNA bending and unwinding of the helix. HMG proteins synergize with Oct-2, members of the NF $\kappa$ B family, ATF-2 and c-Jun to activate transcription. Other studies indicate that phosphorylation of HMG protein is required to stimulate the transcriptional activity of the protein. Human HMG-1 and HMG-2 both contain two DNA-binding domains, termed HMG boxes. HMG proteins bind single-stranded DNA but induce conformational changes in double-stranded DNA alone.

## REFERENCES

1. Wen, L., Huang, J.K., Johnson, B.H. and Reeck, G.R. 1989. A human placental cDNA clone that encodes non-histone chromosomal protein HMG-1. *Nucleic Acids Res.* 17: 1197-1214.
2. Bustin, M., Lehn, D.A. and Landsman, D. 1990. Structural features of the HMG chromosomal proteins and their genes. *Biochim. Biophys. Acta* 1049: 231-243.
3. Shirakawa, H. and Yoshida, M. 1992. Structure of a gene coding for human HMG-2 protein. *J. Biol. Chem.* 267: 6641-6635.
4. Nissen, M.S. and Reeves, R. 1995. Changes in superhelicity are introduced into closed circular DNA by binding of high mobility group protein I/Y. *J. Biol. Chem.* 270: 4355-4360.
5. Wang, D.Z., Ray, P. and Boothby, M. 1995. Interleukin-4-inducible phosphorylation of HMG-I(Y) is inhibited by Rapamycin. *J. Biol. Chem.* 270: 22924-22932.
6. Falvo, J.V., Thanos, D. and Maniatis, T. 1995. Reversal of intrinsic DNA bends in the IFN- $\beta$  gene enhancer by transcription factors and the architectural protein HMG-I(Y). *Cell* 83: 1101-1111.
7. Wood, L.D., Farmer, A.A. and Richmond, A. 1995. HMG-I(Y) and Sp1 in addition to NF $\kappa$ B regulate transcription of the MGSA/GRO  $\alpha$  gene. *Nucleic Acids Res.* 23: 4210-4219.
8. Love, J.J., Li, X., Case, D.A., Giese, K., Grosschedl, R. and Wright, P.E. 1995. Structural basis for DNA bending by the architectural transcription factor LEF-1. *Nature* 376: 791-795.

## CHROMOSOMAL LOCATION

Genetic locus: Hmgb1 (mouse) mapping to 5 G3.

## PRODUCT

HMG-1 (m): 293T Lysate represents a lysate of mouse HMG-1 transfected 293T cells and is provided as 100  $\mu$ g protein in 200  $\mu$ l SDS-PAGE buffer.

## STORAGE

Store at -20 $^{\circ}$  C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

## APPLICATIONS

HMG-1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive HMG-1 antibodies. Recommended use: 10-20  $\mu$ l per lane.

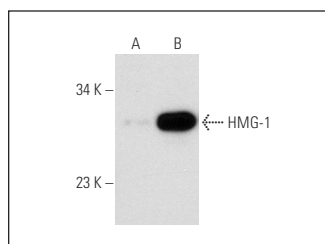
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

HMG-1 (HAP46.5): sc-56698 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse HMG-1 expression in HMG-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

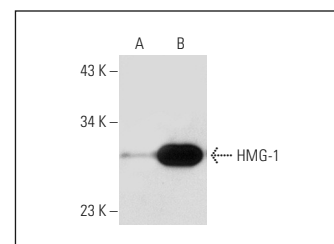
## RECOMMENDED SUPPORT REAGENTS

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

## DATA



HMG-1 (HAP46.5): sc-56698. Western blot analysis of HMG-1 expression in non-transfected: sc-117752 (A) and mouse HMG-1 transfected: sc-120823 (B) 293T whole cell lysates.



HMG-1 (W-18): sc-74085. Western blot analysis of HMG-1 expression in non-transfected: sc-117752 (A) and mouse HMG-1 transfected: sc-120823 (B) 293T whole cell lysates.

## RESEARCH USE

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

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.