

HMG-2 (C-19): sc-8758

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 κ 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 nonhistone 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/HMG-Y is inhibited by Rapamycin. *J. Biol. Chem.* 270: 22924-22932.

CHROMOSOMAL LOCATION

Genetic locus: HMGB2 (human) mapping to 4q31; Hmgb2 (mouse) mapping to 8 B2.

SOURCE

HMG-2 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of HMG-2 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-8758 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-8758 X, 200 μ g/0.1 ml.

STORAGE

Store at 4 $^{\circ}$ C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

HMG-2 (C-19) is recommended for detection of HMG-2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

HMG-2 (C-19) is also recommended for detection of HMG-2 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HMG-2 siRNA (h): sc-37984, HMG-2 siRNA (m): sc-37985, HMG-2 shRNA Plasmid (h): sc-37984-SH, HMG-2 shRNA Plasmid (m): sc-37985-SH, HMG-2 shRNA (h) Lentiviral Particles: sc-37984-V and HMG-2 shRNA (m) Lentiviral Particles: sc-37985-V.

HMG-2 (C-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

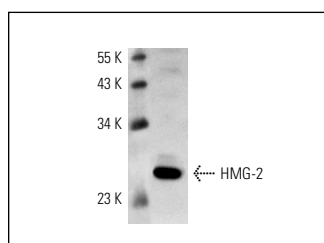
Molecular Weight of HMG-2: 26 kDa.

Positive Controls: K-562 nuclear extract: sc-2130 or HeLa nuclear extract: sc-2120.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker[™] compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker[™] Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/ 2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz[™] Mounting Medium: sc-24941.

DATA



HMG-2 (C-19): sc-8758. Western blot analysis of HMG-2 expression in K-562 nuclear extract.

RESEARCH USE

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