

HMG-2L1 (G-16): sc-86488

BACKGROUND

High mobility group (HMG) protein 1 and 2 have been classified by DNA binding preferences and are ubiquitous non-histone components of chromatin. They bind to the minor groove of AT-rich DNA sequences with high affinity. 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. HMG-2L1 (high mobility group protein 2-like 1), also known as HMGBCG, is a member of the HMG chromosomal protein superfamily. It contains a single HMG box DNA binding domain and therefore does not contain an acidic C-terminal tail. HMG-2L1 is expressed in the nucleus and may play a role in transcriptional regulation.

REFERENCES

1. 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.
2. Laudet, V., Stehelin, D. and Clevers, H. 1993. Ancestry and diversity of the HMG box superfamily. *Nucleic Acids Res.* 21: 2493-2501.
3. 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.
4. Bustin, M. 1999. Regulation of DNA-dependent activities by the functional motifs of the high-mobility-group chromosomal proteins. *Mol. Cell. Biol.* 19: 5237-5246.
5. Online Mendelian Inheritance in Man, OMIM[™]. 2000. John Hopkins University, Baltimore, MD. MIM Number: 604702. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
6. Liu, F., Chau, K.Y., Arlotta, P. and Ono, S.J. 2001. The HMG I proteins: dynamic roles in gene activation, development, and tumorigenesis. *Immunol. Res.* 24: 13-29.
7. Yamada, M., Ohkawara, B., Ichimura, N., Hyodo-Miura, J., Urushiyama, S., Shirakabe, K. and Shibuya, H. 2003. Negative regulation of Wnt signalling by HMG-02L1, a novel NLK-binding protein. *Genes Cells.* 8: 677-684.

CHROMOSOMAL LOCATION

Genetic locus: HMGXB4 (human) mapping to 22q12.3; Hmgxb4 (mouse) mapping to 8 C1.

SOURCE

HMG-2L1 (G-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of HMG-2L1 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-86488 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-86488 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HMG-2L1 (G-16) is recommended for detection of HMG-2L1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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); non cross-reactive with other HMG family members.

HMG-2L1 (G-16) is also recommended for detection of HMG-2L1 in additional species, including porcine.

Suitable for use as control antibody for HMG-2L1 siRNA (h): sc-75266, HMG-2L1 siRNA (m): sc-146048, HMG-2L1 shRNA Plasmid (h): sc-75266-SH, HMG-2L1 shRNA Plasmid (m): sc-146048-SH, HMG-2L1 shRNA (h) Lentiviral Particles: sc-75266-V and HMG-2L1 shRNA (m) Lentiviral Particles: sc-146048-V.

HMG-2L1 (G-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of HMG-2L1: 77 kDa.

Positive Controls: c4 whole cell lysate: sc-364186.

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) 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.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

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

PROTOCOLS

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



Try **HMG-2L1 (F-10): sc-166797** or **HMG-2L1 (D-1): sc-166828**, our highly recommended monoclonal alternatives to HMG-2L1 (G-16).