

HMG-I/HMG-Y (N-19): sc-1564

BACKGROUND

High mobility group (HMG) chromatin proteins 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. Other studies indicate that phosphorylation of HMG protein is required to stimulate the transcriptional activity of the protein. Human HMG-I/HMG-Y contains two DNA-binding domains, termed HMG boxes. HMG proteins bind single-stranded DNA but induce conformational changes in double-stranded DNA alone.

CHROMOSOMAL LOCATION

Genetic locus: HMGA1 (human) mapping to 6p21.31; Hmga1 (mouse) mapping to 17 A3.3.

SOURCE

HMG-I/HMG-Y (N-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of HMG I 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-1564 X, 200 μ g/0.1 ml.

Blocking peptide available for competition studies, sc-1564 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HMG-I/HMG-Y (N-19) is recommended for detection of HMG I and HMG Y 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), immunohistochemistry (including paraffin-embedded sections) (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-I/HMG-Y (N-19) is also recommended for detection of HMG-I and HMG-Y in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HMG-I/HMG-Y siRNA (h): sc-37115, HMG-I/HMG-Y siRNA (m): sc-37116, HMG-I/HMG-Y shRNA Plasmid (h): sc-37115-SH, HMG-I/HMG-Y shRNA Plasmid (m): sc-37116-SH, HMG-I/HMG-Y shRNA (h) Lentiviral Particles: sc-37115-V and HMG-I/HMG-Y shRNA (m) Lentiviral Particles: sc-37116-V.

HMG-I/HMG-Y (N-19) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of HMG-I isoform: 12 kDa.

Molecular Weight of HMG-Y isoform: 11 kDa.

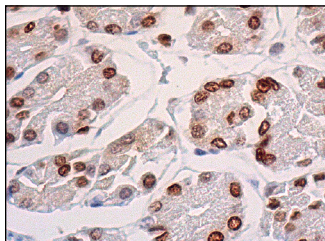
Molecular Weight of HMG-R isoform: 20 kDa.

Positive Controls: mouse spleen extract: sc-2391.

STORAGE

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

DATA



HMG-I/HMG-Y (N-19): sc-1564. Immunoperoxidase staining of formalin fixed, paraffin-embedded human stomach tissue showing nuclear staining of glandular cells.

SELECT PRODUCT CITATIONS

- Miyazawa, K., et al. 1998. Constitutive transcription of the human interleukin-6 gene by rheumatoid synoviocytes: spontaneous activation of NF κ B and CBF1. *Am. J. Pathol.* 152: 793-803.
- Miyazawa, K., et al. 1998. Transcriptional roles of CCAAT/enhancer binding protein- β , nuclear factor- κ B, and C-promoter binding factor 1 in interleukin (IL)-1 β -induced IL-6 synthesis by human rheumatoid fibroblast-like synoviocytes. *J. Biol. Chem.* 273: 7620-7627.
- Chuma, M., et al. 2004. Expression profiling in hepatocellular carcinoma with intrahepatic metastasis: identification of high-mobility group I(Y) protein as a molecular marker of hepatocellular carcinoma metastasis. *Keio J. Med.* 53: 90-97.
- Sarhadi, V.K., et al. 2006. Increased expression of high mobility group A proteins in lung cancer. *J. Pathol.* 209: 206-212.
- Kanada, S., et al. 2008. Two different transcription factors discriminate the -315C \rightarrow T polymorphism of the Fc ϵ RI α gene: binding of Sp1 to -315C and of a high mobility group-related molecule to -315T. *J. Immunol.* 180: 8204-8210.
- Wang, E.L., et al. 2010. Increased expression of HMGA1 correlates with tumour invasiveness and proliferation in human pituitary adenomas. *Histopathology* 56: 501-509.

RESEARCH USE

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

MONOS
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Try **HMG-I/HMG-Y (D-12): sc-393213**, our highly recommended monoclonal alternative to HMG-I/HMG-Y (N-19).