

# HMG-I/HMG-Y (FL-95): sc-8982

## 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 $\kappa$ 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-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 (FL-95) is a rabbit polyclonal antibody raised against amino acids 1-95 representing full length HMG Y of human origin.

## PRODUCT

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

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-8982 X, 200  $\mu$ g/0.1 ml.

## APPLICATIONS

HMG-I/HMG-Y (FL-95) 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), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], 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 (FL-95) is also recommended for detection of HMG-I and HMG-Y in additional species, including 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 (FL-95) 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.

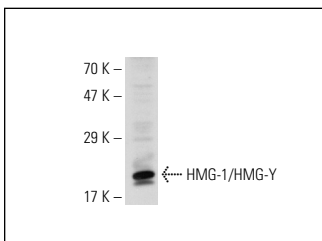
Molecular Weight of HMG-R isoform: 20 kDa.

Positive Controls: Mouse spleen extract: sc-2391.

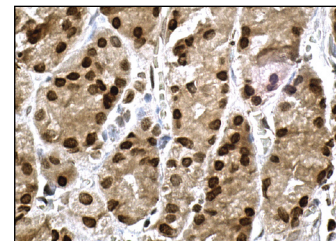
## STORAGE

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 (FL-95): sc-8982. Western blot analysis of HMG-I/HMG-Y expression in mouse spleen tissue extract.



HMG-I/HMG-Y (FL-95): sc-8982. Immunoperoxidase staining of formalin fixed, paraffin-embedded human stomach tissue showing nuclear and cytoplasmic staining of glandular cells.

## SELECT PRODUCT CITATIONS

- Murate, T., et al. 2002. Up-regulation of acid sphingomyelinase during retinoic acid-induced myeloid differentiation of NB4, a human acute promyelocytic leukemia cell line. *J. Biol. Chem.* 277: 9936-9943.
- Massaad-Massade, L., et al. 2002. HMGA1 enhances the transcriptional activity and binding of the estrogen receptor to its responsive element. *Biochemistry* 41: 2760-2768.
- Zhou, B., et al. 2002. Regulation of the murine Nfatc1 gene by NFATc2. *J. Biol. Chem.* 277: 10704-10711.
- Cho, S.J., et al. 2005. A Stat5-overlapping site is critical for the IgJ enhancer activity in the plasma cells and bound by a ubiquitous protein. *Biochem. Biophys. Res. Commun.* 338: 1897-1905.
- Miskolci, V., et al. 2006. TNF $\alpha$  release from peripheral blood leukocytes depends on a CRM1-mediated nuclear export. *Biochem. Biophys. Res. Commun.* 351: 354-360.
- Li, Y., et al. 2007. Dual role for SUMO E2 conjugase Ubc9 in modulating the transforming and growth-promoting properties of the HMGA1 $\beta$  architectural transcription factor. *J. Biol. Chem.* 282: 13363-13371.
- Peng, S., et al. 2011. Genome-wide studies reveal that Lin28 enhances the translation of genes important for growth and survival of human embryonic stem cells. *Stem Cells* 29: 496-504.
- Viemann, D., et al. 2011. H5N1 virus activates signaling pathways in human endothelial cells resulting in a specific imbalanced inflammatory response. *J. Immunol.* 186: 164-173.

## 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) or our catalog for detailed protocols and support products.