SANTA CRUZ BIOTECHNOLOGY, INC.

HMGI-C (FL-109): sc-30223

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

High mobility group (HMG) proteins 1 and 2 are ubiquitous non-histone components of chromatin. The binding of HMG proteins to the minor groove of AT-rich DNA sequences induces alterations in the DNA architecture, including DNA bending and unwinding of the helix. While HMG proteins do not stimulate initiation of transcription, they do enhance the binding of other transcription factors, such as Oct-2, members of the NFκB family, ATF-2 and c-Jun, to activate transcription. Human HMG-1 and HMG-2 contain two DNA-binding domains, termed HMG boxes. HMG proteins bind single-stranded and double-stranded DNA, but only induce conformational changes in double-stranded DNA. The gene encoding human HMGI-C, another HMG family member, maps to chromosome 12q14.3. Chromosomal translocations of the HMGI-C gene frequently appear in tumors of mesenchymal origin. Truncation of the HMGI-C gene leads to abnormal HMGI-C expression and transformation. Transgenic mice with HMGI-C truncation develop natural killer cell lymphomas and exhibit a giant phenotype.

CHROMOSOMAL LOCATION

Genetic locus: HMGA2 (human) mapping to 12q14.3; Hmga2 (mouse) mapping to 10 D2.

SOURCE

HMGI-C (FL-109) is a rabbit polyclonal antibody raised against amino acids 1-109 representing full length HMGI-C of human origin.

PRODUCT

Each vial contains 200 µg 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-30223 X, 200 µg/0.1 ml.

APPLICATIONS

HMGI-C (FL-109) is recommended for detection of HMGI-C of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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); may cross-react with HMG-I/HMG-Y.

HMGI-C (FL-109) is also recommended for detection of HMGI-C in additional species, including porcine and avian.

Suitable for use as control antibody for HMGI-C siRNA (h): sc-37994, HMGI-C siRNA (m): sc-37995, HMGI-C shRNA Plasmid (h): sc-37994-SH, HMGI-C shRNA Plasmid (m): sc-37995-SH, HMGI-C shRNA (h) Lentiviral Particles: sc-37994-V and HMGI-C shRNA (m) Lentiviral Particles: sc-37995-V.

HMGI-C (FL-109) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

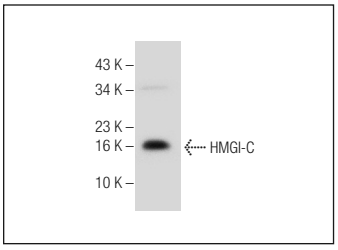
RESEARCH USE

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

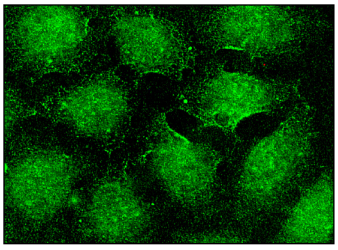
STORAGE

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

DATA



HMGI-C (FL-109): sc-30223. Western blot analysis of HMGI-C expression in NIH/3T3 whole cell lysate.



HMGI-C (FL-109): sc-30223. Immunofluorescence staining of methanol-fixed HeLa cells showing diffused nuclear localization.

SELECT PRODUCT CITATIONS

1. Kuipers, A., et al. 2009. Association of a high mobility group gene (HMGA2) variant with bone mineral density. Bone 45: 295-300.
2. Haferkamp, S., et al. 2009. Oncogene-induced senescence does not require the p16(INK4a) or p14ARF melanoma tumor suppressors. J. Invest. Dermatol. 129: 1983-1991.
3. Leidal, A.M., et al. 2012. Subversion of autophagy by Kaposi's sarcoma-associated herpesvirus impairs oncogene-induced senescence. Cell Host Microbe 1: 167-180.
4. Venkatesan, N., et al. 2012. Molecular deregulation induced by silencing of the high mobility group protein A2 gene in retinoblastoma cells. Mol. Vis. 18: 2420-2437.
5. Guo, L., et al. 2013. Stat3-coordinated Lin-28-let-7-HMGA2 and miR-200-ZEB1 circuits initiate and maintain oncostatin M-driven epithelial-mesenchymal transition. Oncogene 32: 5272-5282.

PROTOCOLS

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