SANTA CRUZ BIOTECHNOLOGY, INC.

HMGI-C (S-15): sc-23684

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 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of 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-23684 X, 200 µg/0.1 ml.

Blocking peptide available for competition studies, sc-23684 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

HMGI-C (S-15) 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).

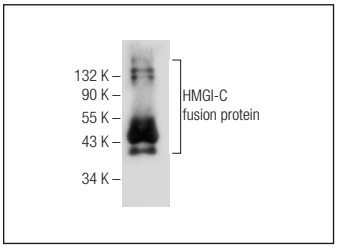
Suitable for use as control antibody for HMGI-C siRNA (h): sc-37994, HMGI-C siRNA (m): sc-37995, HMGI-C shRNA Plasmid (h): sc-37994-SH, HMGI-C shRNA Plasmid (m): sc-37995-SH, HMGI-C shRNA (h) Lentiviral Particles: sc-37994-V and HMGI-C shRNA (m) Lentiviral Particles: sc-37995-V.

HMGI-C (S-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

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



HMGI-C (S-15): sc-23684. Western blot analysis of human recombinant HMGI-C fusion protein.

SELECT PRODUCT CITATIONS

1. Sarhadi, V.K., et al. 2006. Increased expression of high mobility group A proteins in lung cancer. J. Pathol. 209: 206-212.
2. Meyer, B., et al. 2007. HMGA2 overexpression in non-small cell lung cancer. Mol. Carcinog. 46: 503-511.
3. Qian, Z.R., et al. 2009. Overexpression of HMGA2 relates to reduction of the let-7 and its relationship to clinicopathological features in pituitary adenomas. Mod. Pathol. 22: 431-441.

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.