



HMG-14 (h): 293T Lysate: sc-111437

BACKGROUND

The high-mobility group (HMG) proteins 14 and 17 are abundant chromosomal proteins that bind to nucleosomes and enhance transcription. HMG-14 and HMG-17 also function as architectural elements, which alter the structure of the chromatin fiber and enhance transcription from chromatin templates. HMG-14/17 proteins modify the nucleosomal organization of the 30 nmol chromatin fiber and mediate the unfolding of the higher order chromatin structure thereby facilitating access to the underlying DNA sequence. Clustering of architectural elements, such as HMG proteins and linker histone subtypes into distinct domains, may lead to structural and functional heterogeneity along the chromatin fiber. In addition, HMG-14 and HMG-17 have been identified as constitutive components of mouse oocyte and embryonic chromatin that establish a link between the structure of embryonic chromatin and the normal progression of embryonic development. The phosphorylation of HMG-14 at Serine 6 may be related to specific gene expression and present in growing, cycling cells.

REFERENCES

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3. Hock, R., Wilde, F., Scheer, U. and Bustin, M. 1998. Dynamic relocation of chromosomal protein HMG-17 in the nucleus is dependent on transcriptional activity. *EMBO J.* 17: 6992-7001.
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5. Mohamed, O.A., Bustin, M. and Clarke, H.J. 2001. High-mobility group proteins 14 and 17 maintain the timing of early embryonic development in the mouse. *Dev. Biol.* 229: 237-249.
6. Prymakowska-Bosak, M., Misteli, T., Herrera, J.E., Shirakawa, H., Birger, Y., Garfield, S. and Bustin, M. 2001. Mitotic phosphorylation prevents the binding of HMGN proteins to chromatin. *Mol. Cell. Biol.* 21: 5169-5178.

CHROMOSOMAL LOCATION

Genetic locus: HMGN1 (human) mapping to 21q22.2.

PRODUCT

HMG-14 (h): 293T Lysate represents a lysate of human HMG-14 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

HMG-14 (h): 293T Lysate is suitable as a Western Blotting positive control for human reactive HMG-14 antibodies. Recommended use: 10-20 µl per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

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

PROTOCOLS

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