## SANTA CRUZ BIOTECHNOLOGY, INC.

# HMG-20A (X-24): sc-133659



#### 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 NF $\kappa$ B family, ATF-2 and c-Jun, to activate transcription. HMG-20A (high-mobility group 20A), also known as HMGX1 or HMGXB1, is a 347 amino acid protein that localizes to the nucleus and contains one HMG box DNA-binding domain. Expressed ubiquitously, HMG-20A functions as an inhibitor of BRAF35 and, via its association with DNA, plays a role in neuronal differentiation and may also mediate the methylation of Histone H3. Multiple isoforms of HMG-20A exist due to alternative splicing events.

#### REFERENCES

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- Dailey, L. and Basilico, C. 2001. Coevolution of HMG domains and homeodomains and the generation of transcriptional regulation by Sox/POU complexes. J. Cell. Physiol. 186: 315-328.
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- Hsiao, J.C., Chao, C.C., Young, M.J., Chang, Y.T., Cho, E.C. and Chang, W. 2006. A poxvirus host range protein, CP77, binds to a cellular protein, HMG20A, and regulates its dissociation from the vaccinia virus genome in CHO-K1 cells. J. Virol. 80 7714-7728.

#### CHROMOSOMAL LOCATION

Genetic locus: HMG20A (human) mapping to 15q24.3; Hmg20a (mouse) mapping to 9 B.

#### SOURCE

HMG-20A (X-24) is an affinity purified rabbit polyclonal antibody raised against synthetic HMG-20A peptide of human origin.

#### PRODUCT

Each vial contains 50  $\mu g$  IgG in 500  $\mu I$  PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

#### APPLICATIONS

HMG-20A (X-24) is recommended for detection of HMG-20A 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for HMG20A siRNA (h): sc-75267, HMG20A siRNA (m): sc-75268, HMG20A shRNA Plasmid (h): sc-75267-SH, HMG20A shRNA Plasmid (m): sc-75268-SH, HMG20A shRNA (h) Lentiviral Particles: sc-75267-V and HMG20A shRNA (m) Lentiviral Particles: sc-75268-V.

Molecular Weight of (predicted) HMG-20A: 40 kDa.

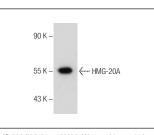
Molecular Weight of (observed) HMG-20A: 57 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

### **RECOMMENDED SECONDARY REAGENTS**

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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).





HMG-20A (X-24): sc-133659. Western blot analysis of HMG-20A expression in HeLa whole cell lysate.

#### **STORAGE**

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

#### **RESEARCH USE**

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

MONOS Satisfation Guaranteed (X-24).

Try **HMG-20A (D-5): sc-393028**, our highly recommended monoclonal alternative to HMG-20A (X-24).