HMG-1 (HAP46.5): sc-56698

BACKGROUND
High mobility group (HMG) proteins 1 and 2 are ubiquitous non-histone components of chromatin. Research 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, ATF-2, c-Jun and members of the NFκB family to activate transcription. Additional studies indicate that phosphorylation of HMG protein is required to stimulate the transcriptional activity of the protein. Human HMG-1 and HMG-2 each contain 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: HMGB1 (human) mapping to 13q12.3, Hmgb1 (mouse) mapping to 5 G3.

SOURCE
HMG-1 (HAP46.5) is a mouse monoclonal antibody raised against full length HMG-1 of human origin.

PRODUCT
Each vial contains 100 μg IgG, kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS
HMG-1 (HAP46.5) is recommended for detection of HMG-1 of mouse, rat, human and avian 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:10-1:3000).

HMG-1 (HAP46.5) is also recommended for detection of HMG-1 in additional species, including canine.

Suitable for use as control antibody for HMG-1 siRNA (h): sc-37982, HMG-1 siRNA (m): sc-37983, HMG-1 siRNA Plasmid (h): sc-37982-SH, HMG-1 shRNA Plasmid (m): sc-37983-SH, HMG-1 shRNA Plasmid (r): sc-37982-SH, HMG-1 shRNA (h) Lentiviral Particles: sc-37982-V, HMG-1 shRNA (m) Lentiviral Particles: sc-37983-V and HMG-1 shRNA (r) Lentiviral Particles: sc-270015-V.

Molecular Weight of HMG-1: 30 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, HMG-1 (m): 293T Lysate: sc-120823 or Jurkat whole cell lysate: sc-2204.

RECOMMENDED SUPPORT REAGENTS
To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-20482, 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

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

DATA

SELECT PRODUCT CITATIONS

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