

HMGN1 (D1I50) Rabbit mAb

✓ 100 µl
 (10 western blots)



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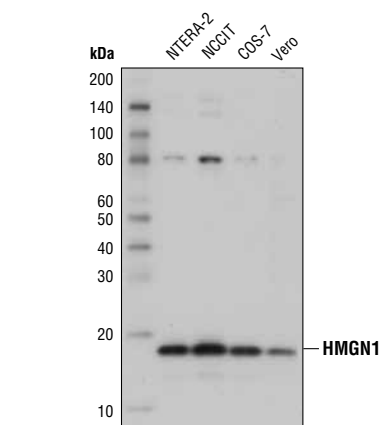
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Applications W, IP, IF-IC Endogenous	Species Cross-Reactivity* H, Mk	Molecular Wt. 18 kDa	Isotype Rabbit IgG**
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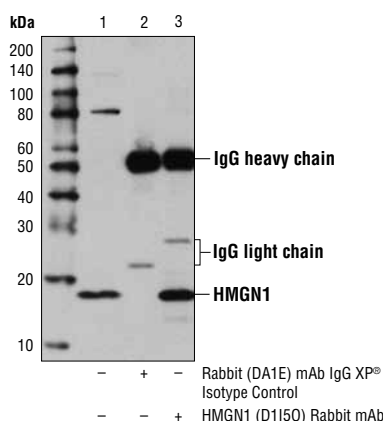
Background: High mobility group (HMG) proteins are a superfamily of abundant and ubiquitous nuclear proteins that bind DNA without sequence specificity and induce structural changes to the chromatin fiber to regulate access to the underlying DNA. The HMGN family of proteins, which includes five members (HMGN1-5), is characterized by the presence of several conserved protein domains: a positively charged domain, a nucleosome binding domain, and an acidic C-terminal chromatin-unfolding domain (1,2). HMGN proteins function in transcriptional regulation and are recruited to gene promoters by transcription factors, such as estrogen receptor α (ER α), serum responsive factor (SRF), and PITX2, where they can facilitate either gene activation or repression (3-5). HMGN proteins bind specifically to nucleosomal DNA and reduce compaction of the chromatin fiber, in part by competing with linker histone H1 for nucleosome binding (6). In addition, HMGN proteins act to modulate local levels of post-translational histone modifications, decreasing phosphorylation of histone H3 at Ser10 and histone H2A at Ser1 and increasing acetylation of histone H3 at Lys14 (7-9). HMGN proteins can also modulate the activity of several chromatin-remodeling factors and restrict nucleosome mobility (10).

Specificity/Sensitivity: HMGN1 (D1I50) Rabbit mAb recognizes endogenous levels of total HMGN1 protein. This antibody does not cross-react with other HMGN proteins.

Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Val32 of human HMGN1 protein.



Western blot analysis of extracts from various cell lines using HMGN1 (D1I50) Rabbit mAb.



Immunoprecipitation of HMGN1 from HeLa cell extracts, using Rabbit (DA1E) mAb IgG XP® Isotype Control #3900 (lane 2) or HMGN1 (D1I50) Rabbit mAb (lane 3). Lane 1 is 10% input. Western blot analysis was performed using HMGN1 (D1I50) Rabbit mAb.

DyLight is a trademark of Thermo Fisher Scientific Inc. and its subsidiaries.
 Tween is a registered trademark of ICI Americas, Inc.

Entrez-Gene ID #3150
 UniProt ID #P05114

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

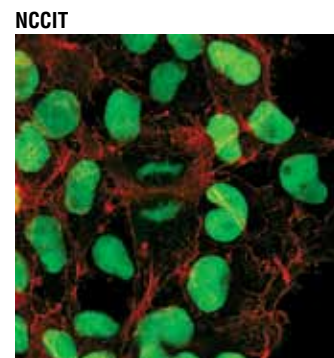
Western blotting	1:1000
Immunoprecipitation	1:50
Immunofluorescence (IF-IC)	1:1000

For product specific protocols please see the web page for this product at www.cellsignaling.com.

Please visit www.cellsignaling.com for a complete listing of recommended companion products.

Background References:

- (1) Hock, R. et al. (2007) *Trends Cell Biol* 17, 72-9.
- (2) Gerlitz, G. *Biochim Biophys Acta* 1799, 80-5.
- (3) Zhu, N. and Hansen, U. (2007) *Mol Cell Biol* 27, 8859-73.
- (4) Amen, M. et al. (2008) *Nucleic Acids Res* 36, 462-76.
- (5) Belova, G.I. et al. (2008) *J Biol Chem* 283, 8080-8.
- (6) Catez, F. et al. (2002) *EMBO Rep* 3, 760-6.
- (7) Lim, J.H. et al. (2005) *EMBO J* 24, 3038-48.
- (8) Lim, J.H. et al. (2004) *Mol Cell* 15, 573-84.
- (9) Postnikov, Y.V. et al. (2006) *Biochemistry* 45, 15092-9.
- (10) Rattner, B.P. et al. (2009) *Mol Cell* 34, 620-6.



Confocal immunofluorescent analysis of NCCIT cells using HMGN1 (D1I50) Rabbit mAb (green). Actin filaments were labeled with DyLight™ 554 Phalloidin #13054 (red).

IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

Applications Key: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide
Species Cross-Reactivity Key: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine
 Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.