

# HMGA2 (D1A7) Rabbit mAb



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**For Research Use Only. Not For Use In Diagnostic Procedures.**

Applications W, IHC-P, IF-IC Endogenous	Species Cross-Reactivity* H, M, R, (Mk)	Molecular Wt. 18 kDa	Isotype Rabbit IgG**
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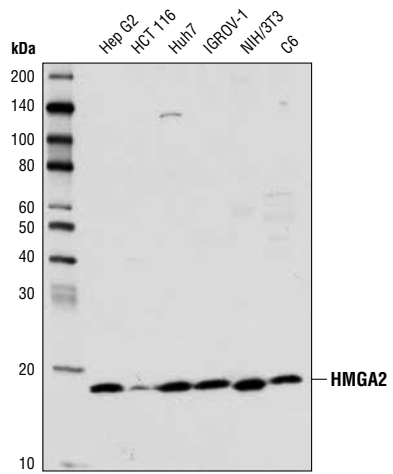
**Background:** HMGA2 belongs to the family of high mobility group with AT-hook DNA binding domain. HMGA proteins are considered architectural transcription factors; they do not have direct transcriptional activation capacity, but instead regulate gene expression by changing DNA conformation through binding to AT-rich regions in the DNA and/or direct interaction with other transcription factors (1,2). HMGA2 is abundantly and ubiquitously expressed and plays a crucial role during embryonic development (3). HMGA2 promotes stem cell self-renewal and research studies have shown that decreased HMGA2 expression is associated with stem cell aging (4-7). Investigators have shown that expression levels of HMGA2 are very low in normal adult tissues, while either overexpression or rearrangement is associated with many types of cancer (8-11).

**Specificity/Sensitivity:** HMGA2 (D1A7) Rabbit mAb recognizes endogenous levels of total HMGA2 protein.

**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human HMGA2 protein.

**Background References:**

- (1) Cleynen, I. and Van de Ven, W.J. (2008) *Int J Oncol* 32, 289-305.
- (2) Pfannkuche, K. et al. (2009) *Stem Cell Rev* 5, 224-30.
- (3) Monzen, K. et al. (2008) *Nat Cell Biol* 10, 567-74.
- (4) Nishino, J. et al. (2008) *Cell* 135, 227-39.
- (5) Li, O. et al. (2006) *Genesis* 44, 523-9.
- (6) Li, O. et al. (2007) *FEBS Lett* 581, 3533-7.
- (7) Pfannkuche, K. et al. (2009) *Stem Cell Rev* 5, 224-30.
- (8) Fusco, A. and Fedele, M. (2007) *Nat Rev Cancer* 7, 899-910.
- (9) Rawlinson, N.J. et al. (2008) *Cancer Genet Cytogenet* 181, 119-24.
- (10) Wei, J.J. et al. (2010) *Am J Surg Pathol* 34, 18-26.
- (11) Mahajan, A. et al. (2010) *Mod Pathol* 23, 673-81.



Western blot analysis of extracts from various cell lines using HMGA2 (D1A7) Rabbit mAb.

Entrez-Gene ID #8091  
UniProt ID #P52926

**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  
Immunohistochemistry (Paraffin) 1:400†

Unmasking buffer: Citrate  
Antibody diluent: SignalStain® Antibody Diluent #8112  
Detection reagent: SignalStain® Boost (HRP, Rabbit) #8114

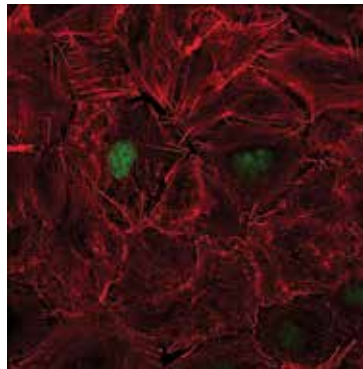
†Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.

Immunofluorescence (IF-IC) 1:400

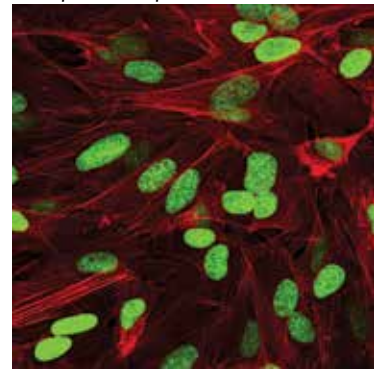
For product specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

Untreated



hTGF-β1 and IL-1β treated

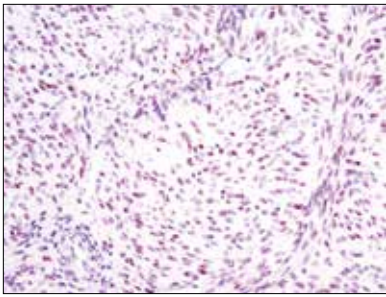


Confocal immunofluorescent analysis of A549 cells, untreated (left) or treated with hTGF-β1 #8915 (10 ng/ml) and hIL-1β #8900 (5 ng/ml, 48 hr; right), using HMGA2 (D1A7) Rabbit mAb (green). Actin filaments were labeled with DyLight™ 554 Phalloidin #13054 (red).

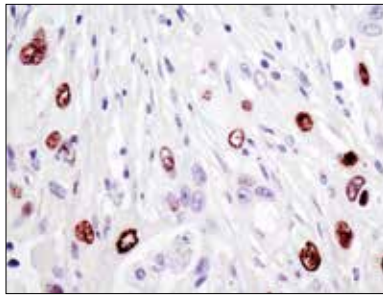
**IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.**

**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.

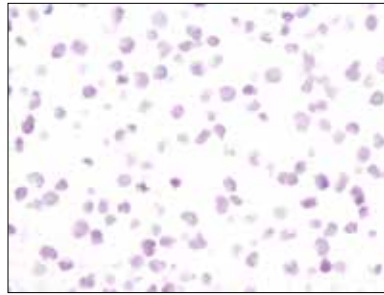
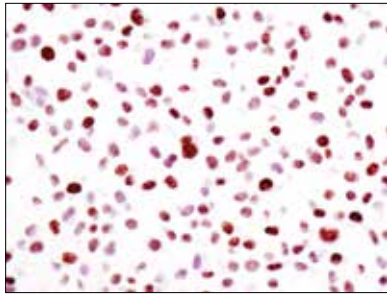
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*Immunohistochemical analysis of paraffin-embedded human uterine leiomyoma using HMGA2 (D1A7) Rabbit mAb.*



*Immunohistochemical analysis of paraffin-embedded human colon carcinoma using HMGA2 (D1A7) Rabbit mAb.*



*Immunohistochemical analysis of paraffin-embedded cell pellets, HCT 116 (left) or HBP-ALL (right), using HMGA2 (D1A7) Rabbit mAb.*