

**Goat Anti-HMGB3 / HMG4 Antibody**  
Peptide-affinity purified goat antibody  
Catalog # AF1533a

**Specification**

---

**Goat Anti-HMGB3 / HMG4 Antibody - Product Information**

|                   |  |
|-------------------|--|
| Application       | WB   |
| Primary Accession | <a href="#">O15347</a>   |
| Other Accession   | <a href="#">NP_005333</a> , <a href="#">3149</a> , <a href="#">15354 (mouse)</a> |
| Reactivity        | Human  |
| Predicted         | Mouse  |
| Host              | Goat   |
| Clonality         | Polyclonal   |
| Concentration     | 100ug/200ul  |
| Isotype           | IgG  |
| Calculated MW     | 22980  |

**Goat Anti-HMGB3 / HMG4 Antibody - Additional Information**

**Gene ID** 3149

**Other Names**

High mobility group protein B3, High mobility group protein 2a, HMG-2a, High mobility group protein 4, HMG-4, HMGB3, HMG2A, HMG4

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-HMGB3 / HMG4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-HMGB3 / HMG4 Antibody - Protein Information**

**Name** HMGB3

**Synonyms** HMG2A, HMG4

**Function**

Multifunctional protein with various roles in different cellular compartments. May act in a redox sensitive manner. Associates with chromatin and binds DNA with a preference for non-canonical DNA structures such as single-stranded DNA. Can bend DNA and enhance DNA flexibility by

looping thus providing a mechanism to promote activities on various gene promoters (By similarity). Proposed to be involved in the innate immune response to nucleic acids by acting as a cytoplasmic promiscuous immunogenic DNA/RNA sensor (By similarity). Negatively regulates B-cell and myeloid cell differentiation. In hematopoietic stem cells may regulate the balance between self-renewal and differentiation. Involved in negative regulation of canonical Wnt signaling (By similarity).

#### Cellular Location

Nucleus {ECO:0000250|UniProtKB:P40618, ECO:0000255|PROSITE-ProRule:PRU00267}.  
Chromosome Cytoplasm {ECO:0000250|UniProtKB:O54879}

#### Tissue Location

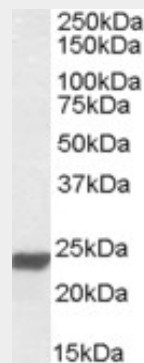
Expressed predominantly in placenta.

### Goat Anti-HMGB3 / HMG4 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### Goat Anti-HMGB3 / HMG4 Antibody - Images



AF1533a (0.01 µg/ml) staining of Human Lung lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

### Goat Anti-HMGB3 / HMG4 Antibody - Background

HMGB3 belongs to the high mobility group (HMG) protein superfamily. Like HMG1 (MIM 163905) and HMG2 (MIM 163906), HMGB3 contains DNA-binding HMG box domains and is classified into the HMG box subfamily. Members of the HMG box subfamily are thought to play a fundamental role in DNA replication, nucleosome assembly and transcription (Wilke et al., 1997 [PubMed 9370291]; Nemeth et al., 2006 [PubMed 16945912]).

### Goat Anti-HMGB3 / HMG4 Antibody - References

Hmgb3 regulates the balance between hematopoietic stem cell self-renewal and differentiation.

Nemeth MJ, et al. Proc Natl Acad Sci U S A, 2006 Sep 12. PMID 16945912.  
The LIFEdb database in 2006. Mehrle A, et al. Nucleic Acids Res, 2006 Jan 1. PMID 16381901.  
The DNA sequence of the human X chromosome. Ross MT, et al. Nature, 2005 Mar 17. PMID 15772651.  
From ORFeome to biology: a functional genomics pipeline. Wiemann S, et al. Genome Res, 2004 Oct. PMID 15489336.  
The status, quality, and expansion of the NIH full-length cDNA project: the Mammalian Gene Collection (MGC). Gerhard DS, et al. Genome Res, 2004 Oct. PMID 15489334.