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# Product Information

**Anti-HMGB1 (HMG1) (N-terminal)**
produced in rabbit, affinity isolated antibody

Catalog Number **H9664**

## Product Description

Anti-HMGB1 (HMG1) (N-terminal) is produced in rabbit using as immunogen a synthetic peptide corresponding to amino acid 2-17 of human HMGB1, (GeneID: 3146) conjugated to KLH. The corresponding sequence is conserved in mouse and rat**.** The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-HMGB1 (HMG1) (N-terminal) recognizes human, mouse and rat HMGB1. The antibody may be used for several applications including immunoblotting (25 kDa), immunoprecipitation and immunofluorescence. Detection of the HMGB1 band by immunoblotting is specifically inhibited with the immunizing peptide.

The High Mobility Group (HMG) proteins, originally isolated from mammalian cells, were named according to their electrophoretic mobility in polyacrylamide gels. They bind DNA in a non-sequence-specific manner to promote chromatin function and gene regulation. The HMG proteins are subdivided into 3 families based on their functional sequence motif characteristic: HMGB (formerly HMG-1/-2) family, HMGN (formerly HMG-14/-17), and HMGA (formerly HMG-I/Y/C) family. The functional motif of the HMGB family is called the "HMG-box", which is of the HMGN family, is called the "nucleosomal binding domain;" and that of the HMGA family is called the "AT-hook".[1]

The HMGB protein family includes HMGB1, HMGB2 and HMGB3, that are highly conserved (more than 80% amino acid identity), and indistinguishable in their biochemical properties. HMGB-1 and 2 participate in the regulation of chromatin structure as well as being involved in transcription regulation, DNA repair, recombination, differentiation, and extracellular signaling.[2-7] HMGB1 is a ~ 25 kDa protein of 215 amino acids and consists of two homologous HMG-boxes rich in basic amino acids, and an acidic tail at the carboxy-terminus.[1-7] Mice that lack HMGB1 die shortly after birth due to hypoglycemia. They show a defect in transcriptional enhancement of the glucocorticoid receptor, that indicates the important role for HMGB1 in proper transcriptional control by specific transcription factors.[8]

## Reagent

Supplied as a solution in 0.01 M PBS, pH 7.4, containing 15 mM sodium azide as a preservative.

Antibody concentration: ~1.0 mg/mL

## Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

## Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage, freeze in working aliquots. Repeated freezing and thawing, or storage in "frost-free" freezers, is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilutions should be discarded if not used within 12 hours.

## Product Profile

Immunoblotting: a working concentration of 1-2 µg/mL is recommended using 3T3 cell lysates.

Immunoprecipitation: a working amount of 10 µg is recommended using HEK-293T cell lysates.

Indirect immunofluorescence: a working concentration of 1-2 µg/mL is recommended using paraformaldehyde-Triton® fixed PC12 cultured cells.

**Note**: In order to obtain the best results using various techniques and preparations, we recommend determining the optimal working dilutions by titration.

## References

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