

# Product Information

## Anti-HMGB2 (HMG2)

produced in rabbit, affinity isolated antibody

Catalog Number **H9789**

### Product Description

Anti-HMGB2 (HMG2) is produced in rabbit using as immunogen a synthetic peptide corresponding to amino acid 165-181 of human HMGB2 (GenoID: 3148), conjugated to KLH. The corresponding sequence is conserved in mouse and differs by one amino acid in rat. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-HMGB2 (HMG2) recognizes human, mouse and rat HMGB2. 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: the HMGB (formerly HMG-1/-2) family, the HMGN (formerly HMG-14/-17) and the HMGA (formerly HMG-I/Y/C) family. The functional motif of the HMGB family is called the "HMG-box", that of the HMGN family is called the "nucleosomal binding domain;" and that of the HMGA family is called the "AT-hook".<sup>1</sup> The HMGB protein family, including HMGB1, HMGB2, and HMGB3, 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.<sup>2-7</sup>

HMGB2 is a ~25 kDa protein of 209 amino acids that consists of two homologous HMG-boxes rich in basic amino acids and an acidic tail at the carboxy-terminus.<sup>1-7</sup> In contrast to HMGB1, which is ubiquitously expressed, HMGB2 is restricted mainly to lymphoid organs and testes, although it is widely expressed in embryogenesis.<sup>9</sup> Mice that lack HMGB2 have reduced fertility and defective spermatogenesis suggesting specific role for HMGB2 in germ cell differentiation.<sup>9</sup>

### 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 2-4 µg/mL is recommended using PC12 whole cell lysates.

Immunoprecipitation: a working amount of 5-10 µg is recommended using HEK-293T cell lysates.

Indirect immunofluorescence: a working concentration of 1-2 µg/mL is recommended using 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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