

# Chicken Anti-HMGB1 Polyclonal Antibody

## PRODUCT INFORMATION

Product Number: 326052233

Isotype: Chicken IgY fraction

Contents: 1 mg antibody in 1 mL PBS (pH 7.2)

Storage: Below -20 °C ; avoid repeated freeze/thaw cycles.

## BACKGROUND

HMGB1 and HMGB2 are chromatin-associated nuclear proteins that play an important role in transcription and DNA recombination. HMG proteins contain a highly acidic C-terminal domain as well as two evolutionarily conserved high mobility group (HMG) box motifs as their N-terminus<sup>1</sup>. HMG boxes are found in numerous DNA binding proteins and transcription factors and allow HMG proteins to bind and to bend DNA<sup>2</sup>. Especially, HMGB1 is known as amphoterin, it mediates neurite outgrowth, and it binds receptors for advanced glycation end products (RAGE)<sup>3</sup>. Recently, HMGB1 was unexpectedly identified as a cytokine through studies of endotoxemia and sepsis<sup>4</sup>.

## SPECIFICITY AND PREPARATION

The antibody recognizes human, rabbit, bovine, pig, rat, and mouse HMGB1, and also recognizes HMGB2 slightly. The specificity of the antibody was confirmed by western blot analysis. Purified pig thymus HMGB1 was used as an immunogen. The antibody was purified from egg yolk by salt precipitation.

## USAGE

Western blotting: 2-3 µg/mL

Neutralizing antibody: 2mg/kg/mouse<sup>5</sup>

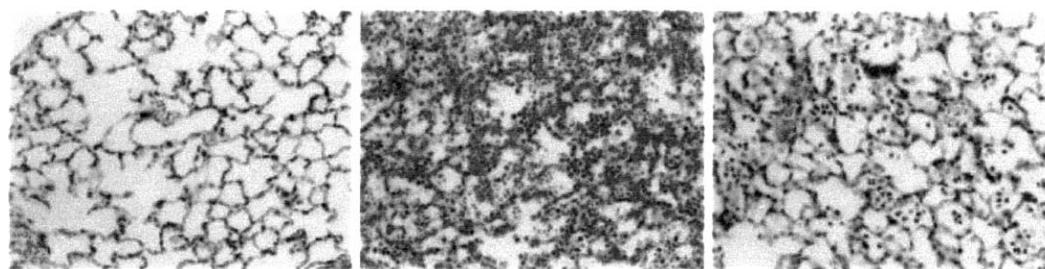
## CAUTION

For research use only.

Not for diagnostic and therapeutic use.

Endotoxin is not removed from this antibody.

## APPLICATION<sup>6</sup>



Bars= 100 µm

control

LPS-instilled

antibody

Illustrative histologic samples in control, LPS-instilled, and anti-HMGB1 antibody + LPS-instilled mice (antibody). Note the mitigation of lung injury by the anti-HMGB1 treatment, whereas some neutrophil infiltration into the air spaces persisted. n = 10 in each group. Hematoxylin and eosin staining. Original magnification ×400.

## **REFERENCES**

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2. Baxevanis A. D and Landsman D. The HMG-1 box protein family: classification and functional relationships. *Nucleic Acids Res* 1995; **23**: 1604-1613.
3. Hori O *et al.* The receptor for advanced glycation end products (RAGE) is a cellular binding site for amphoterin. *J Biol Chem* 1995; **270**: 25752-25761.
4. Wang H *et al.* HMG-1 as a late mediator of endotoxin lethality in mice. *Science* 1999; **285**: 248-251.
5. Abeyama K *et al.* The N-terminal domain of thrombomodulin sequesters high-mobility group-B1 protein, a novel antiinflammatory mechanism. *J Clin Invest* 2005; **115**: 1267-74.
6. Ueno H *et al.* Contributions of High Mobility Group Box Protein in Experimental and Clinical Acute Lung Injury. *Am J Respir Crit Care Med* 2004; **170**: 1310-1316.

Manufactured and sold by

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