

Datasheet for ABIN1820221 **anti-HMGB1 antibody**



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Overview

Quantity:	0.1 mg
Target:	HMGB1
Reactivity:	Human, Mouse, Rat, Hamster
Host:	Hamster
Clonality:	Monoclonal
Conjugate:	This HMGB1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Flow Cytometry (FACS)

Product Details

Immunogen:	Recombinant mouse HMGB1. Type of Immunogen: Recombinant protein
Clone:	HMG1-5H6
Isotype:	IgG
Specificity:	Recognizes High mobility group protein B1 (HMGB1), a ubiquitously expressed nuclear DNA binding protein, and one of a newly emerging group of alarmins, which acts as a stabilizer of nucleosome formation, and facilitates transcription factor binding, by bending DNA. HMGB1 is one of the signature danger signals of endogenous cellular injury, and is released outside the cell by necrotic and inflammatory cells to act as a chemoattractant for immature dendritic cells (DCs), promoting their maturation. DCs can also secrete HMGB1, promoting proliferation and Th1 polarization of interacting T cells. Cellular injury resulting in necrosis, leads to passive HMGB1 release, and microbes or pro-inflammatory cytokines may later stimulate active release

Product Details

from APCs. HMGB1 is emerging as a prime specific marker and regulator of necrotic cell death, possibly through the PI3KC3-MEK-ERK pathway. It interacts directly with the autophagy protein Beclin-1, and binds to receptors, such as RAGE on endothelial cells, and Toll-like receptors on macrophages. Studies identifying microtubule-associated protein 1 light chain 3 (LC3) lipidation and redistribution, coupled with the accumulation of autophagosomes and autolysosomes, have shown an important role for HMGB1 release in sustaining autophagy. Studies have also shown that HMGB1 released after chemotherapy treatment is a critical regulator of autophagy, and a potential drug target for therapeutic interventions in leukemia. HMGB1 is increasingly recognized as an important protein in medical research. It is angiogenic and promotes cardiac stem cell growth and differentiation, it may act as an adjuvant or assist in tissue repair, and is also a prototypical damage-associated molecular pattern molecule (DAMP) which co-precipitates with CD24 and is associated with the hallmarks of cancer. Accelerated levels of HMGB1 are seen in several cancers and correlates with metastatic activity. Studies have shown that clone HMG1-5H6 cross-reacts with human, rat and hamster HMGB1.

Purification: Protein G purified

Target Details

Target: HMGB1

Alternative Name: HMG1 / HMGB1 ([HMGB1 Products](#))

Background: Name/Gene ID: HMGB1

Synonyms: HMGB1, Amphoterin, High mobility group protein B1, High mobility group box 1, High mobility group protein 1, HMG1, HMG3, SBP-1, High-mobility group box 1, HMG-1

Gene ID: 3146

Pathways: [p53 Signaling](#), [Regulation of Muscle Cell Differentiation](#), [Skeletal Muscle Fiber Development](#), [Positive Regulation of Endopeptidase Activity](#), [Regulation of Carbohydrate Metabolic Process](#), [Toll-Like Receptors Cascades](#), [Smooth Muscle Cell Migration](#), [Inflammasome](#)

Application Details

Application Notes: Optimal working dilution should be determined by the investigator.

Comment: Target Species of Antibody: Mouse

Restrictions: For Research Use only

Handling

Format:	Liquid
Concentration:	Lot specific
Buffer:	PBS, 0.09 % sodium azide
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	4 °C,-20 °C
Storage Comment:	4°C or -20°C, Avoid freeze-thaw cycles.