

# High Mobility Group (HMG) Proteins Antibody Sampler Kit

Cat# AK0167

Upon receipt, store at -20°C. Avoid freeze/thaw cycles.

## PRODUCT DESCRIPTION

High mobility group (HMG) proteins are a superfamily of abundant and ubiquitous nuclear proteins that bind DNA without sequence specificity and induce structural changes to the chromatin fiber to regulate access to the underlying DNA. HMGA1, formerly known as HMGI/Y, belongs to a family of high mobility group proteins known as HMGA. HMGA proteins are considered architectural transcription factors; they do not have direct transcriptional activation capacity, but instead regulate gene expression by changing DNA conformation through binding to AT-rich regions in the DNA and/or direct interaction with other transcription factors. HMGA1 is highly expressed during embryogenesis and in embryonic stem cells, but not in fully differentiated adult tissues. High mobility group protein B1 (HMGB1) and high mobility group protein B2 (HMGB2) belong to a family of highly conserved proteins that contain HMG box domains. HMGB1 is a widely expressed and highly abundant protein. HMGB2 is widely expressed during embryonic development, but it is restricted to lymphoid organs and testis in adult animals. While expression varies, the biochemical properties of the different family members may be indistinguishable. HMGB proteins are recruited by and help facilitate the assembly of site-specific DNA binding proteins to their cognate binding sites in chromatin. For example, HMGB1 and HMGB2 facilitate the binding of Hox proteins, Oct proteins, p53, Rel proteins, and steroid hormone receptor proteins to their target gene promoters. In addition to their functions in the nucleus, HMGB proteins play a significant role in extracellular signaling associated with inflammation. HMGB1 is massively released into the extracellular environment during cell necrosis, but not apoptosis. Extracellular HMGB1 "alarms" the innate immune system by acting as a chemoattractant for inflammatory cells triggering activation of T cells and dendritic cells. In addition, activated monocytes, macrophages, and dendritic cells also secrete HMGB1. HMGB2 is secreted by mye

## PRODUCT INCLUDES

Cat No.	Product name	Quantity	Applications	Reactivity	Host
A340167	HMGA1 Polyclonal Antibody	20µL	WB, ELISA	Human, Mouse, Rat	Rabbit
A340548	HMG-1 Polyclonal Antibody	20µL	WB, IHC, IF, ELISA	Human, Mouse, Rat	Rabbit
A340549	HMG-2 Polyclonal Antibody	20µL	WB, IHC, IF, ELISA	Human, Mouse, Rat	Rabbit

<b>A1013s</b>	Goat Anti-Rabbit IgG (H+L) (peroxidase/HRP conjugated)	120μL	WB, ELISA	Rabbit	Goat
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## **PRODUCT USE LIMITATION**

These products are intended for research use only.