

HMGB1 Rabbit monoclonal antibody

Catalog: MB66271

Host: Rabbit

Reactivity: Human, Mouse, Rat

BackGround:

High mobility group protein B1 (HMGB1) belongs to a family of highly conserved proteins that contain HMG box domains. All three family members (HMGB1, HMGB2, and HMGB3) contain two HMG box domains and a C-terminal acidic domain. HMGB1 is a widely expressed and highly abundant protein. HMGB2 is widely expressed during embryonic development, but is restricted to lymphoid organs and testis in adult animals. HMGB3 is only expressed during embryogenesis. While expression varies, the biochemical properties of the different family members may be indistinguishable. The HMG box domains facilitate the binding of HMGB proteins to the minor groove of DNA, which results in local bending of the DNA double helix. 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 facilitates the binding of Hox proteins, Oct-1, 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 chemottractant for inflammatory leukocytes, smooth muscle cells, and stem cells, functioning as an immune adjuvant for soluble and particulate antigens, and triggering activation of T cells and dendritic cells. In addition, activated monocytes, macrophages and dendritic cells also secrete HMGB1, forming a positive feedback loop that results in the release of additional cytokines and neutrophils. Hypoxia has also been shown to cause the release of HMGB1 in the liver, and some studies suggest a role for extracellular HMGB1 in tumor homeostasis.

Product:

Liquid in 50mM Tris-Glycine (pH 7.4), 0.15M NaCl, 50% Glycerol, 0.01% Sodium azide and 0.05% BSA.

Molecular Weight:

~ 26 kDa

Swiss-Prot:

P09429

Purification&Purity:

The antibody was purified by immunogen affinity chromatography.

Applications:

WB (1/500 - 1/1000), IHC (1/50 - 1/100)

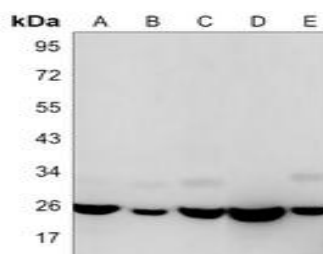
Storage&Stability:

Store at 4 °C short term. Aliquot and store at -20 °C long term. Avoid freeze-thaw cycles.

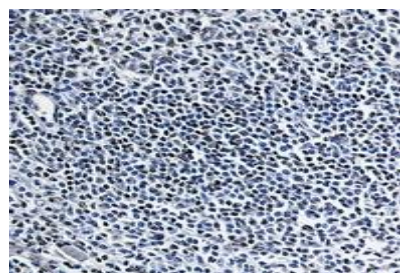
Specificity:

Recognizes endogenous levels of HMGB1 protein.

DATA:



Western blot analysis of HMGB1 expression in K562 (A), rat brain (B), C6 (C), NIH3T3 (D), HeLa (E) whole cell lysates.



Immunohistochemical analysis of HMGB1 staining in human tonsil formalin fixed paraffin embedded tissue section. The section was

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PRODUCT DATA SHEET

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pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.111). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Note:

For research use only, not for use in diagnostic procedure.

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