

# IHC*easy* HMGB2 Ready-To-Use IHC Kit

Catalog Number: **KHC0723**

## General Information

**Sample type:**  
FFPE tissue

**Cited sample type:**

**Reactivity:**  
Human, Rat

**Cited Reactivity:**

**Assay type:**  
Immunohistochemistry

**Primary antibody type:**  
Mouse Monoclonal

**Secondary antibody type:**  
Polymer-HRP-Goat anti-Mouse

## Kit Component

Component	Size	Concentration
Antigen Retrieval Buffer	100 mL	50×
Washing Buffer	100 mL × 2	20×
Blocking Buffer	5 mL	RTU
Primary Antibody	5 mL	RTU
Secondary Antibody	5 mL	RTU
Chromogen Component A	0.2 mL	RTU
Chromogen Component B	4 mL	RTU
Signal Enhancer	5 mL	RTU
Counter Staining Reagent	5 mL	RTU
Mounting Media	5 mL	RTU
Control Slide	1 slide (Optional)	FFPE
Datasheet	1 Copy	
Manual	1 Copy	

## Storage Instructions

All the reagents are stored at 2-8°C. The kit is stable for 6 months from the date of receipt.

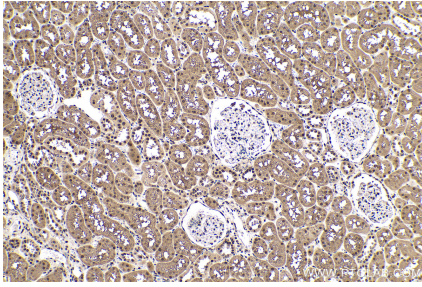
## Background

High mobility group protein B2 (HMGB2) 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 it 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 and HMGB2 facilitate the binding of Hox proteins, Oct proteins, p53, Rel proteins, and steroid hormone receptor proteins to their target gene promoters. Furthermore, HMGB2 interacts with RAG1 to facilitate RAG complex binding to the recombinant signal sequence (RSS) and stimulate DNA-bending and subsequent VDJ cleavage at antigen receptor genes. In addition to their functions in the nucleus, HMGB proteins play a significant role in extracellular signaling associated with inflammation. HMGB2 is secreted by myeloid cells and promotes proliferation and migration of endothelial cells by binding to the receptor for advanced glycation endproducts (RAGE). Research studies have shown that HMGB2 overexpression in hepatocellular carcinoma is associated with poor prognosis and shorter survival time.

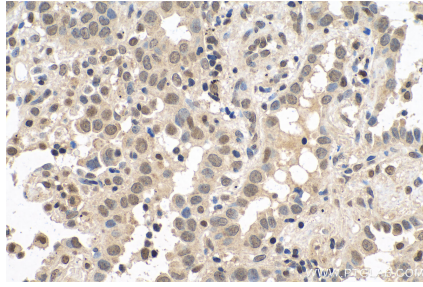
## Synonyms

high mobility group box 2, High mobility group protein 2, High mobility group protein B2, HMG 2, HMGB2, HMGB2

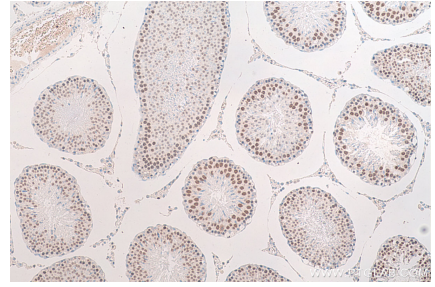
## Selected Validation Data



Immunohistochemical analysis of paraffin-embedded human kidney tissue slide using KHC0723 (HMGB2 IHC Kit).



Immunohistochemical analysis of paraffin-embedded human lung cancer tissue slide using KHC0723 (HMGB2 IHC Kit).



Immunohistochemical analysis of paraffin-embedded rat testis tissue slide using KHC0723 (HMGB2 IHC Kit).