For Research Use Only

HMGB2 Recombinant antibody

Catalog Number:83482-5-RR

proteintech®
Antibodies | ELISA kits | Proteins
www.ptglab.com

Basic Information

Catalog Number:
83482-5-RR

Size:
1000 μg/ml

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG6135

GenBank Accession Number:
BC001063

GeneID (NCBI):
3148

UNIPROT ID:
P26583

Full Name:
high-mobility group box 2

Calculated MW:
24 kDa

Purification Method:
Protein A purfication

CloneNo.:
240453H5

Recommended Dilutions:
IF/ICC 1:200-1:800

Applications

Tested Applications:
IF/ICC, FC (Intra), ELISA

Species Specificity:
human

Positive Controls:

IF/ICC : HepG2 cells,

Background Information

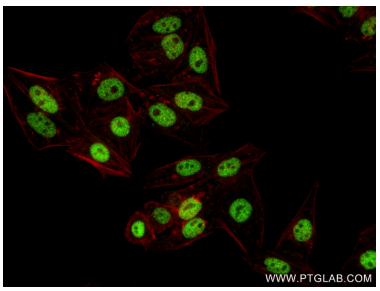
High mobility group protein B2 (HMGB2) belongs to a family of highly conserved proteins that contain HMG box domains (11246022,14871457). All three family members (HMGB1, HMGB2, and HMGB3) contain two HMG box domains and a C-terminal acidic domain. HMGB1 is a widely expressed and highly abundant protein (14871457). HMGB2 is widely expressed during embryonic development, but it is restricted to lymphoid organs and testis in adult animals (11262228). HMGB3 is only expressed during embryogenesis (9598312). 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 (11246022,14871457). 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 (19317908 ,10490593). 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) (19811285). Research studies have shown that HMGB2 overexpression in hepatocellular carcinoma is associated with poor prognosis and shorter survival time (20851854).The calculated molecular weight of HMGB2 is 24 kDa, and the post-modifiction of HMGB2 is about 33-35 kDa. (18218727)

Storage

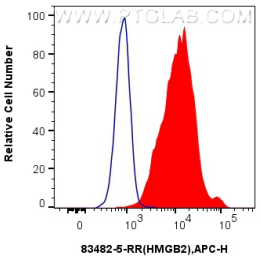
Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

For technical support and original validation data for this product please contact:
T: 4006900926 E: Proteintech-CN@ptglab.com W: ptgcn.com

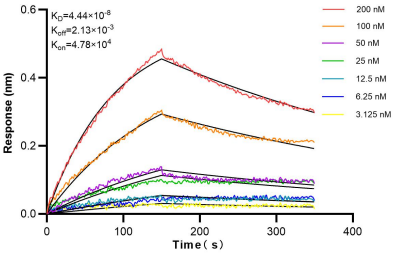
Selected Validation Data



Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using HMGB2 antibody (83482-5-RR, Clone: 240453H5) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L) (SA00013-1), CL594-Phalloidin (red).



1x10^6 HeLa cells were intracellularly stained with 0.25 ug HMGB2 Recombinant antibody (83482-5-RR, Clone:240453H5) and APC-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)(red), or 0.25 ug Isotype Control (blue). Cells were fixed and permeabilized with Transcription Factor Staining Buffer Kit (PF00011).



Biolayer interferometry (BLI) kinetic assays of 83482-5-RR against Human HMGB2 were performed. The affinity constant is 44.4 nM.