10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

HMG2 / HMGB2 Antibody (clone 3D2)

Mouse Monoclonal Antibody
Catalog # ALS13340

Specification

HMG2 / HMGB2 Antibody (clone 3D2) - Product Information

Application	**WB, IF, IHC**
Primary Accession	P26583
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Calculated MW	**24kDa KDa**

HMG2 / HMGB2 Antibody (clone 3D2) - Additional Information

Gene ID 3148

Other Names
High mobility group protein B2, High mobility group protein 2, HMG-2, HMGB2, HMG2

Reconstitution & Storage
Store at -20°C. Aliquot to avoid freeze/thaw cycles.

Precautions
HMG2 / HMGB2 Antibody (clone 3D2) is for research use only and not for use in diagnostic or therapeutic procedures.

HMG2 / HMGB2 Antibody (clone 3D2) - Protein Information

Name HMGB2

Synonyms HMG2

Function
Multifunctional protein with various roles in different cellular compartments. May act in a redox sensitive manner. In the nucleus is an abundant chromatin-associated non-histone protein involved in transcription, chromatin remodeling and V(D)J recombination and probably other processes. Binds DNA with a preference to non- canonical DNA structures such as single-stranded DNA. Can bent DNA and enhance DNA flexibility by looping thus providing a mechanism to promote activities on various gene promoters by enhancing transcription factor binding and/or bringing distant regulatory sequences into close proximity (PubMed:7797075, PubMed:11909973, PubMed:19522541, PubMed:18413230, PubMed:19965638, PubMed:20123072). Involved in V(D)J recombination by acting as a cofactor of the RAG complex: acts by stimulating cleavage and

RAG protein binding at the 23 bp spacer of conserved recombination signal sequences (RSS) (By similarity). Proposed to be involved in the innate immune response to nucleic acids by acting as a promiscuous immunogenic DNA/RNA sensor which cooperates with subsequent discriminative sensing by specific pattern recognition receptors (By similarity). In the extracellular compartment acts as a chemokine. Promotes proliferation and migration of endothelial cells implicating AGER/RAGE (PubMed:19811285). Has antimicrobial activity in gastrointestinal epithelial tissues (PubMed:23877675). Involved in inflammatory response to antigenic stimulus coupled with pro- inflammatory activity (By similarity). Involved in modulation of neurogenesis probably by regulation of neural stem proliferation (By similarity). Involved in articular cartilage surface maintenance implicating LEF1 and the Wnt/beta-catenin pathway (By similarity).

Cellular Location
Nucleus. Chromosome. Cytoplasm. Secreted. Note=In basal state predominantly nuclear.

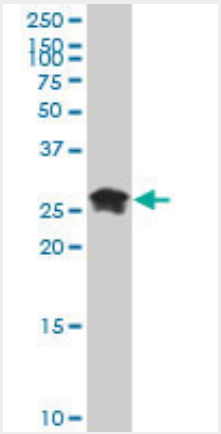
Tissue Location
Expressed in gastric and intestinal tissues (at protein level).

HMG2 / HMGB2 Antibody (clone 3D2) - Protocols

Provided below are standard protocols that you may find useful for product applications.

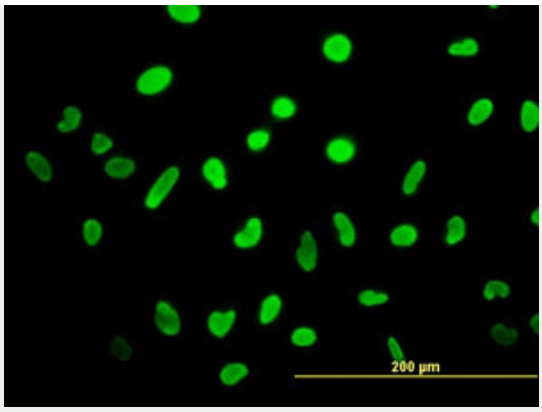
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

HMG2 / HMGB2 Antibody (clone 3D2) - Images

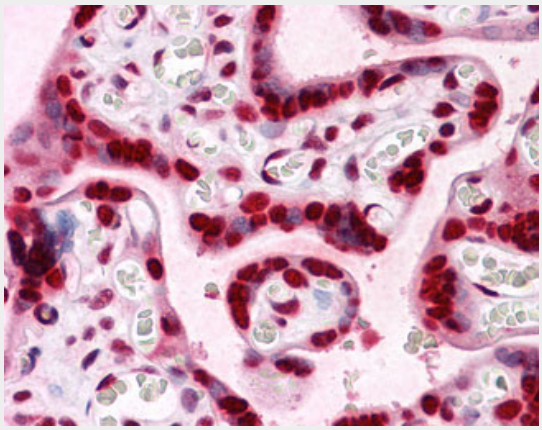


HMGB2 monoclonal antibody (M04), clone 3D2 Western blot of HMGB2 expression in HeLa NE.

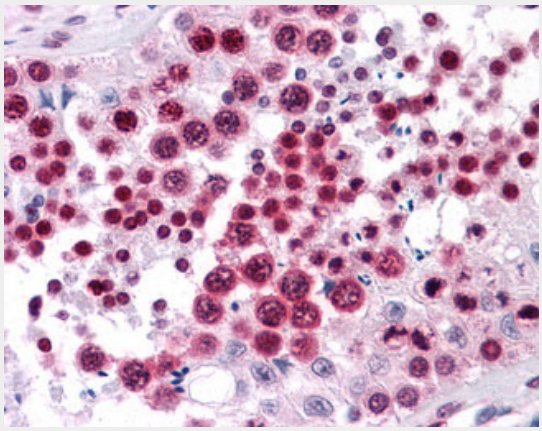
10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Immunofluorescence of monoclonal antibody to HMGB2 on HeLa cell (antibody concentration 10 ug/ml).

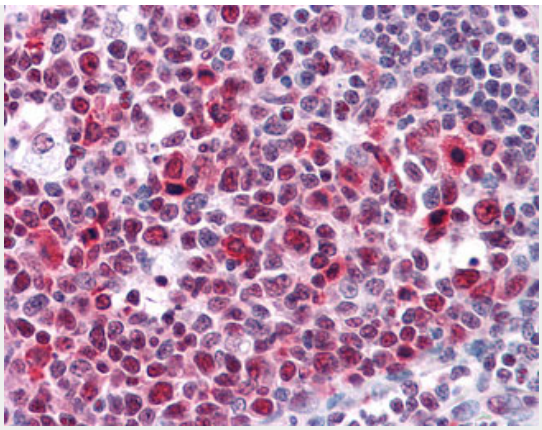


Anti-HMGB2 antibody IHC of human placenta.



Anti-HMGB2 antibody IHC of human testis.

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999



Anti-HMGB2 antibody IHC of human tonsil.

HMG2 / HMGB2 Antibody (clone 3D2) - Background

DNA binding proteins that associates with chromatin and has the ability to bend DNA. Binds preferentially single-stranded DNA. Involved in V(D)J recombination by acting as a cofactor of the RAG complex. Acts by stimulating cleavage and RAG protein binding at the 23 bp spacer of conserved recombination signal sequences (RSS) (By similarity).

HMG2 / HMGB2 Antibody (clone 3D2) - References

Majumdar A.,et al.Nucleic Acids Res. 19:6643-6643(1991).
Shirakawa H.,et al.J. Biol. Chem. 267:6641-6645(1992).
Kalnine N.,et al.Submitted (OCT-2004) to the EMBL/GenBank/DDBJ databases.
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Mural R.J.,et al.Submitted (SEP-2005) to the EMBL/GenBank/DDBJ databases.