

Rabbit Anti-HMGA1 antibody

SL1030R

Product Name HMGA1

Chinese Name 高迁移率族蛋白 A1 抗体

Alias HMG-I; HMG-Y; High mobility group AT-hook 1; HMG-I/HMG-Y; HMG-R; HMGA 1a; HMGA 1b; HMGA1; HMGI; HMGI/Y; HMGIY; HMGY; MGC12816; MGC4242; MGC4854; HMGA1_HUMAN; High mobility group protein HMG-I/HMG-Y; HMG-I(Y); AltName: Full=High mobility group AT-hook protein 1; High mobility group protein A1; High mobility group protein R.

Research Area Chromatin and nuclear signals Microbiology

Immunogen Species Rabbit

Clonality Polyclonal

React Species Human (predicted:Mouse,Rat,Chicken,Cow)
IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 (Paraffin sections need antigen repair)

Applications not yet tested in other applications.
optimal dilutions/concentrations should be determined by the end user.

Theoretical molecular weight 12kDa

Cellular localization The nucleus

Form Liquid

Concentration 1mg/ml

immunogen KLH conjugated synthetic peptide derived from human HMGA1: 51-107/107

Lsotype IgG

Purification affinity purified by Protein A

Buffer Solution 1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.

Storage Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.

Attention This product as supplied is intended for research use only, not for use in human,

therapeutic or diagnostic applications.

PubMed

[PubMed](#)

HMGA1 (HMGI/Y; high mobility group AT-hook 1) is a non-histone protein involved in many cellular processes, including regulation of inducible gene transcription, integration of retroviruses into chromosomes, and the metastatic progression of cancer cells. There are two splice isoforms of HMGA1 - the full length HMGA1a/HMGI and the shortened form HMGA1b/HMGY. The encoded protein preferentially binds to the minor groove of A+T-rich regions in double-stranded DNA. It has little secondary structure in solution but assumes distinct conformations when bound to substrates such as DNA or other proteins. HMGA1 is frequently acetylated and is found in the nucleus. Interacts with HIV-1 pre-integration complex.

Function:

HMG-I/Y bind preferentially to the minor groove of A+T rich regions in double stranded DNA. It is suggested that these proteins could function in nucleosome phasing and in the 3'-end processing of mRNA transcripts. They are also involved in the transcription regulation of genes containing, or in close proximity to A+T-rich regions.

Subunit:

Interacts with HIPK2 (By similarity). Interacts with HIV-1 pre-integration complex.

**Product
Detail**

Subcellular Location:

Nucleus. Chromosome.

Post-translational modifications:

Constitutively phosphorylated on two or three sites. Phosphorylated upon DNA damage, probably by ATM or ATR. Hyperphosphorylated at early stages of apoptosis, followed by dephosphorylation and methylation, which coincides with chromatin condensation. Isoforms HMG-I and HMG-Y can be phosphorylated by HIPK2.

Phosphorylation of HMG-I at Ser-36, Thr-53 and Thr-78 and of HMG-Y at Thr-42 and Thr-67 by HIPK2 modulates DNA-binding affinity.

HMG-Y is not methylated.

Methylation at Arg-58 is mutually exclusive with methylation at Arg-60.

DISEASE:

Note=A chromosomal aberration involving HMGA1 is found in pulmonary chondroid hamartoma. Translocation t(6;14)(p21;q23-24) with RAD51B.

Similarity:

Belongs to the HMGA family.

Contains 3 A.T hook DNA-binding domains.



SWISS:
P17096

Gene ID:
3159

Database links:

[Entrez Gene: 3159](#) Human

[Entrez Gene: 15361](#) Mouse

[Entrez Gene: 117062](#) Rat

[Omim: 600701](#) Human

[SwissProt: P17096](#) Human

[SwissProt: P17095](#) Mouse

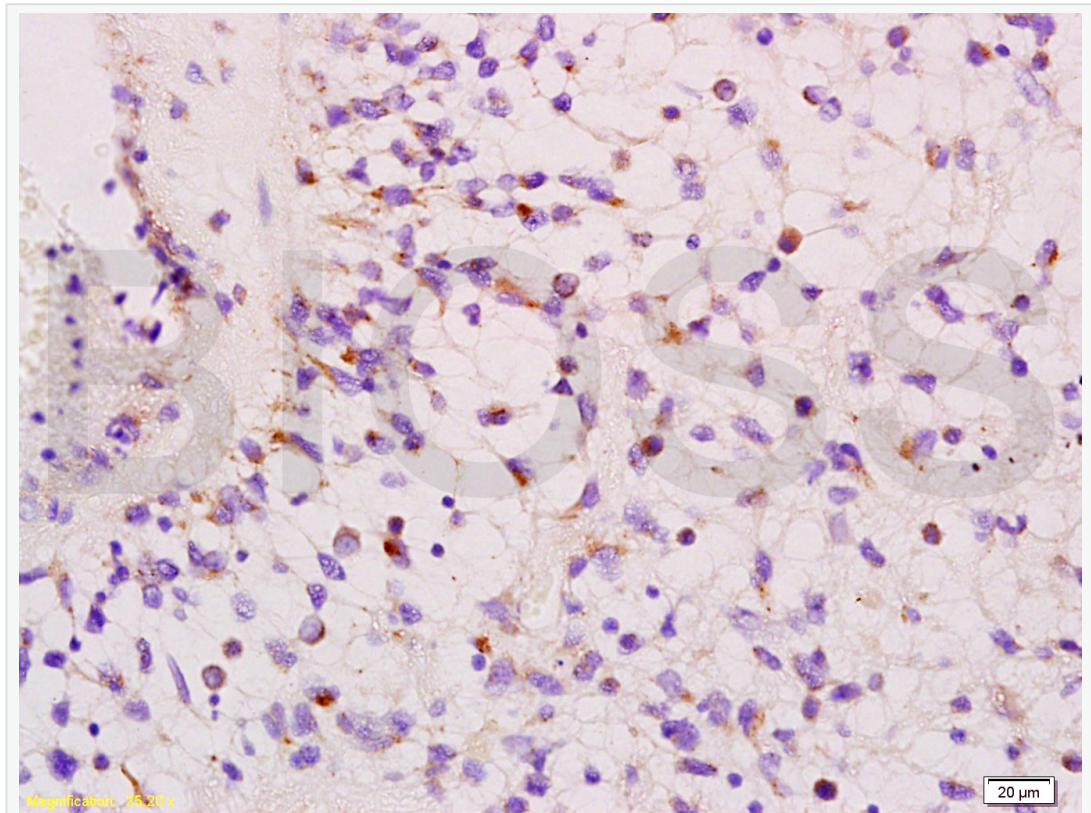
[SwissProt: Q8K585](#) Rat

[Unigene: 518805](#) Human

[Unigene: 4438](#) Mouse

[Unigene: 228608](#) Rat

**Product
Picture**

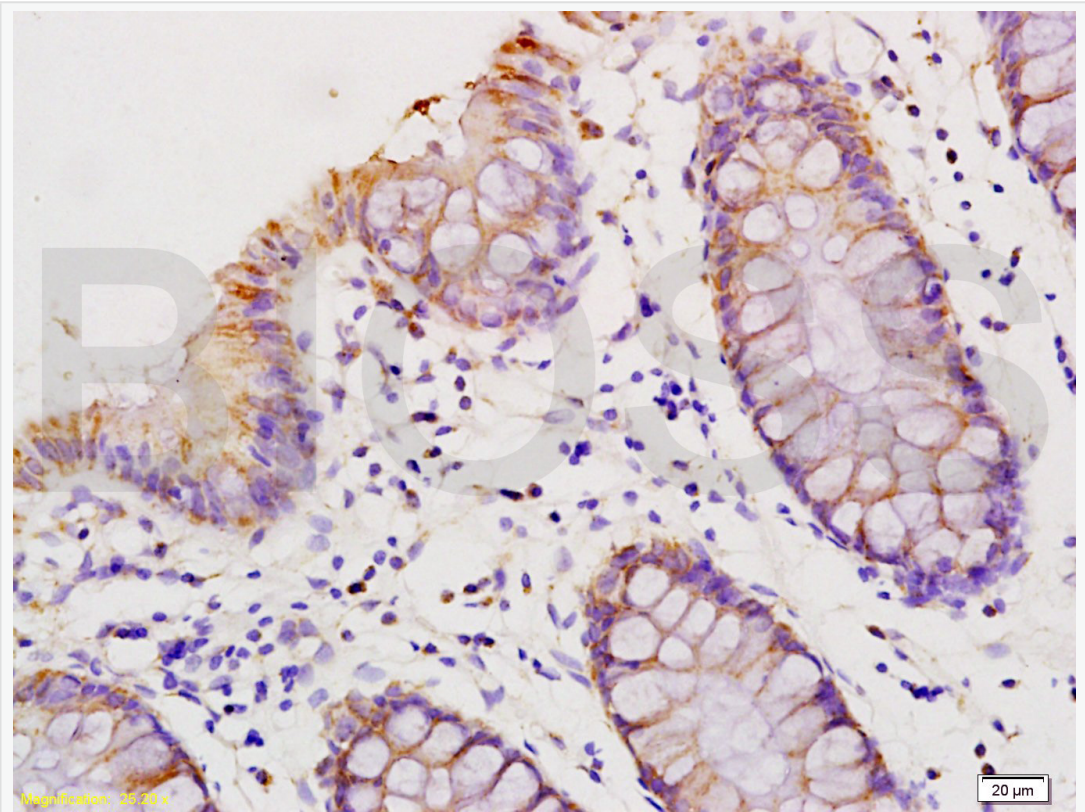


Tissue/cell: human colon carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-HMGA1/HMG-I/HMG-Y Polyclonal Antibody,

Unconjugated(SL1030R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Tissue/cell: human glioma tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (1M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

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