Product datasheet

Anti-H2AFY2/MACROH2A2 Antibody

Catalog Number: *A09931-1*

BOSTER®
antibody and ELISA experts
BOSTER BIOLOGICAL TECHNOLOGY
Building C21, 3rd to 5th Floors, Optics Valley Biopharmaceutical Accelerator,
East Lake High-Tech Development Zone, Wuhan.
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Basic Information

Product Name	Anti-H2AFY2/MACROH2A2 Antibody
Gene Name	MACROH2A2
Source	Rabbit
Clonality	Polyclonal
Isotype	IgG
Species Reactivity	human, mouse, rat
Tested Application	WB, IHC, ICC/IF, FCM, ELISA
Contents	500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol.
Immunogen	E.coli-derived human H2AFY2/MACROH2A2 recombinant protein (Position: D181-D340). Human MACROH2A2 shares 99.4% amino acid (aa) sequence identity with mouse MACROH2A2.
Concentration	500 ug/ml
Purification	Immunogen affinity purified.
Observed MW	40 kDa
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 Flow Cytometry (Fixed): 1:50-200 Enzyme linked immunosorbent assay (ELISA): 1:100-1000 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.

Storage

12 months from date of receipt，-20℃ as supplied.

Background Information

Core histone macro-H2A.2 is a protein that in humans is encoded by the H2AFY2 gene. Histones are basic nuclear proteins that are responsible for the nucleosome structure of the chromosomal fiber in eukaryotes. Nucleosomes consist of approximately 146 bp of DNA wrapped around a histone octamer composed of pairs of each of the four core histones (H2A, H2B, H3, and H4). The chromatin fiber is further compacted through the interaction of a linker histone, H1, with

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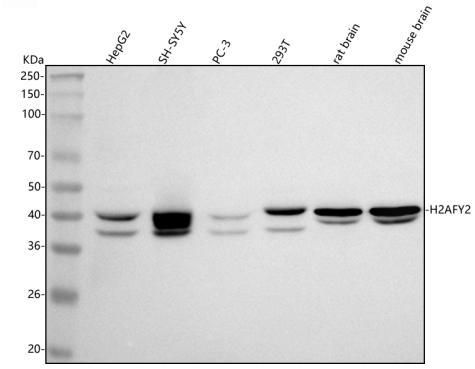
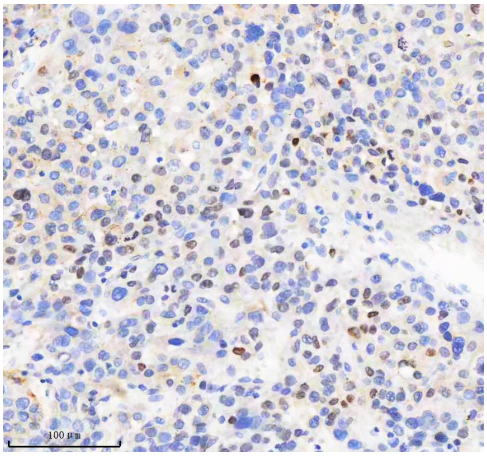
the DNA between the nucleosomes to form higher order chromatin structures. This gene encodes a replication-independent histone that is a member of the histone H2A family. It replaces conventional H2A histones in a subset of nucleosomes where it represses transcription and may participate in stable X chromosome inactivation.

Selected Validation Data



Western blot analysis of H2AFY2/MACROH2A2 using anti-H2AFY2/MACROH2A2 antibody (A09931-1). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.
Lane 1: human HepG2 whole cell lysates,
Lane 2: human SH-SY5Y whole cell lysates,
Lane 3: human PC-3 whole cell lysates,
Lane 4: human 293T whole cell lysates,
Lane 5: rat brain tissue lysates,
Lane 6: mouse brain tissue lysates.
After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-H2AFY2/MACROH2A2 antigen affinity purified polyclonal antibody (A09931-1) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for H2AFY2/MACROH2A2 at approximately 40 kDa. The expected band size for H2AFY2/MACROH2A2 is at 40 kDa.



IHC analysis of H2AFY2/MACROH2A2 using anti-H2AFY2/MACROH2A2 antibody (A09931-1) .
H2AFY2/MACROH2A2 was detected in a paraffin-embedded section of human liver cancer tissue. The tissue section was incubated with rabbit anti-H2AFY2/MACROH2A2 Antibody (A09931-1) at a dilution of 1:200 and developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1027) as the chromogen.

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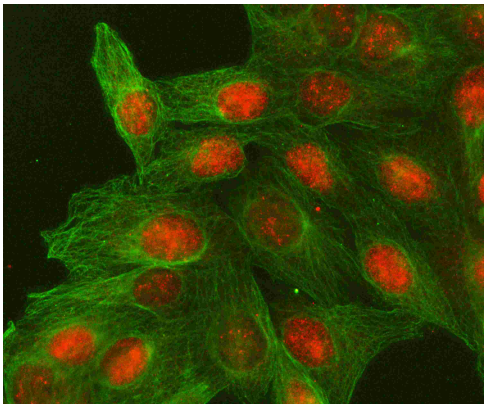
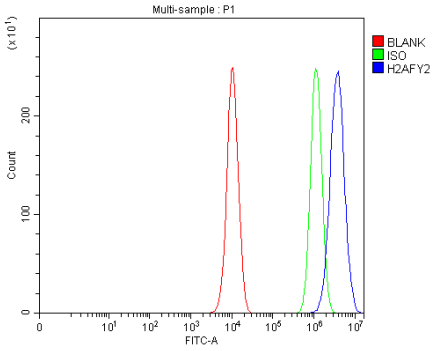


ICC/IF analysis of H2AFY2/MACROH2A2 using anti-H2AFY2/MACROH2A2 antibody (A09931-1) and anti-Beta Tubulin antibody (M01857-3).
H2AFY2/MACROH2A2 was detected in an immunocytochemical section of U2OS cells. The section was incubated with rabbit anti-H2AFY2/MACROH2A2 Antibody (A09931-1) at a dilution of 1:100. Cy3-Conjugated Anti-rabbit IgG Secondary Antibody (Red) (Catalog # BA1032) and Fluoro488-conjugated Anti-mouse IgG Secondary Antibody (Green) (Catalog # BA1126) were used as secondary antibody.



Flow Cytometry analysis of PC-3 cells using anti-H2AFY2/MACROH2A2 antibody (A09931-1).
Overlay histogram showing PC-3 cells stained with A09931-1 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-H2AFY2/MACROH2A2 Antibody (A09931-1, 1:100). Fluoro488 conjugated goat anti-rabbit IgG (BA1127, 1:100) was used as secondary antibody. Isotype control antibody (Green line) was rabbit IgG (Catalog # BA1045) (1:100) used under the same conditions. Unlabelled sample (Red line) was also used as a control.