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Anti-Histone H1.0/H1F0 Antibody Picoband™ (monoclonal, 5I3E6)

Catalog # ABO16260

Specification

Anti-Histone H1.0/H1F0 Antibody Picoband™ (monoclonal, 5I3E6) - Product Information

Application	**WB, IHC, FC**
Primary Accession	P07305
Host	**Mouse**
Isotype	**Mouse IgG2b**
Reactivity	**Human, Mouse**
Clonality	**Monoclonal**
Format	**Lyophilized**

Description
Anti-Histone H1.0/H1F0 Antibody Picoband™ (monoclonal, 5I3E6) . Tested in Flow Cytometry, IHC, WB applications. This antibody reacts with Human, Mouse.

Reconstitution
Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.

Anti-Histone H1.0/H1F0 Antibody Picoband™ (monoclonal, 5I3E6) - Additional Information

Gene ID 3005

Other Names
Histone H1.0, Histone H1', Histone H1(0), Histone H1.0, N-terminally processed, H1-0 (HGNC:4714)

Calculated MW
24 kDa KDa

Application Details
Western blot, 0.25-0.5 µg/ml, Human
 Immunohistochemistry(Paraffin-embedded Section), 2-5 µg/ml, Human, Mouse
 Flow Cytometry, 1-3 µg/1x10^6 cells, Human

Contents
Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na2HPO4.

Immunogen
E.coli-derived human Histone H1.0/H1F0 recombinant protein (Position: K20-K159).

Purification
Immunogen affinity purified.

Storage	**At -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated**

freezing and thawing.

Anti-Histone H1.0/H1F0 Antibody Picoband™ (monoclonal, 5I3E6) - Protein Information

Name H1-0 (HGNC:4714)

Function
Histones H1 are necessary for the condensation of nucleosome chains into higher-order structures. The histones H1.0 are found in cells that are in terminal stages of differentiation or that have low rates of cell division.

Cellular Location
Nucleus {ECO:0000255|PROSITE-ProRule:PRU00837, ECO:0000269|PubMed:18993075}. Chromosome {ECO:0000255|PROSITE- ProRule:PRU00837, ECO:0000269|PubMed:18993075}. Note=The RNA edited version has been localized to nuclear speckles. During mitosis, it appears in the vicinity of condensed chromosomes

Anti-Histone H1.0/H1F0 Antibody Picoband™ (monoclonal, 5I3E6) - 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

Anti-Histone H1.0/H1F0 Antibody Picoband™ (monoclonal, 5I3E6) - Images

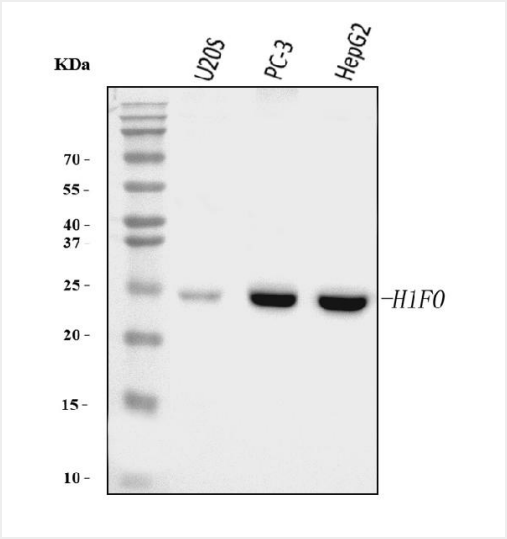

Figure 1. Western blot analysis of Histone H1.0/H1F0 using anti-Histone H1.0/H1F0 antibody (M08821-2).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing

conditions.
Lane 1: human U20S whole cell lysates,
Lane 2: human PC-3 whole cell lysates,
Lane 3: human HepG2 whole cell lysates.
After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-Histone H1.0/H1F0 antigen affinity purified monoclonal antibody (Catalog # M08821-2) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for Histone H1.0/H1F0 at approximately 24 kDa. The expected band size for Histone H1.0/H1F0 is at 24 kDa.

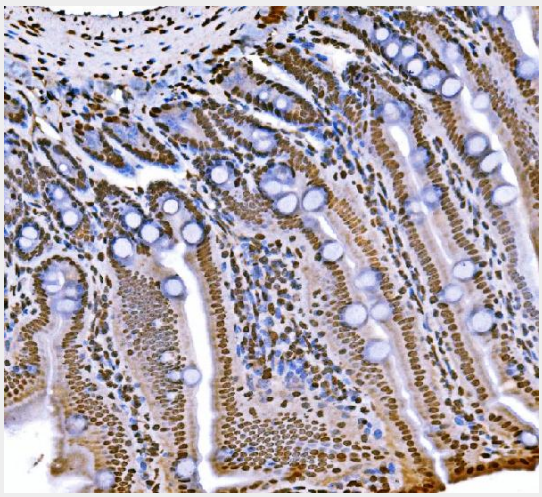

Figure 2. IHC analysis of Histone H1.0/H1F0 using anti-Histone H1.0/H1F0 antibody (M08821-2). Histone H1.0/H1F0 was detected in a paraffin-embedded section of mouse colon tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Histone H1.0/H1F0 Antibody (M08821-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

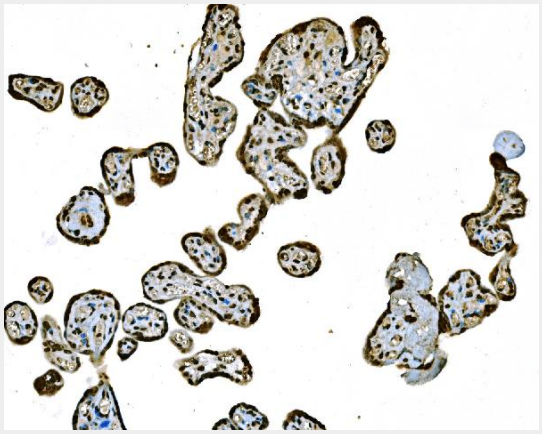

Figure 3. IHC analysis of Histone H1.0/H1F0 using anti-Histone H1.0/H1F0 antibody (M08821-2). Histone H1.0/H1F0 was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2

µg/ml mouse anti-Histone H1.0/H1F0 Antibody (M08821-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

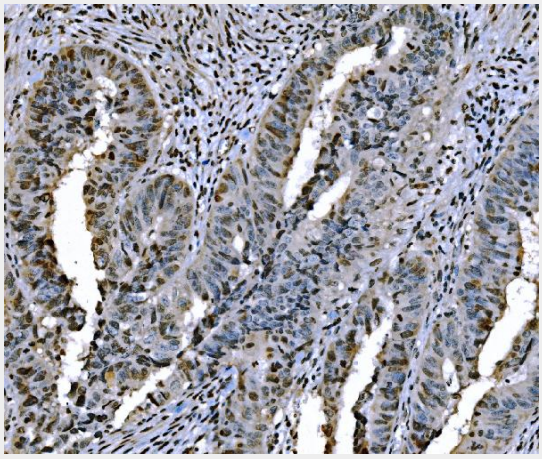

Figure 4. IHC analysis of Histone H1.0/H1F0 using anti-Histone H1.0/H1F0 antibody (M08821-2). Histone H1.0/H1F0 was detected in a paraffin-embedded section of human differentiated adenocarcinoma of the rectum tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Histone H1.0/H1F0 Antibody (M08821-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

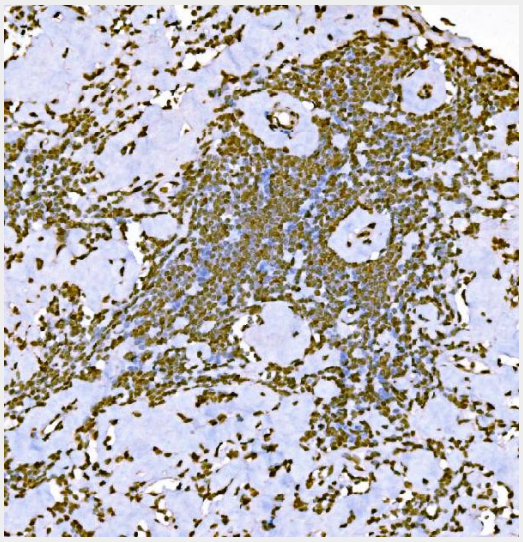

Figure 5. IHC analysis of Histone H1.0/H1F0 using anti-Histone H1.0/H1F0 antibody (M08821-2). Histone H1.0/H1F0 was detected in a paraffin-embedded section of human Hodgkin's lymphoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Histone H1.0/H1F0 Antibody (M08821-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

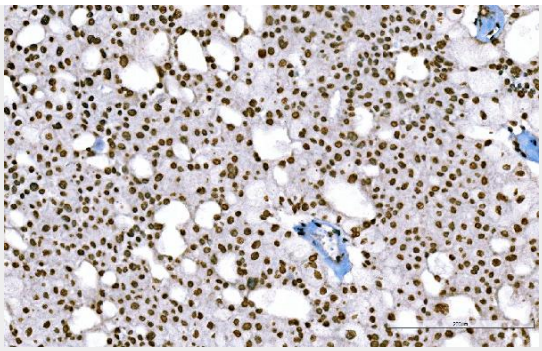

Figure 6. IHC analysis of Histone H1.0/H1F0 using anti-Histone H1.0/H1F0 antibody (M08821-2). Histone H1.0/H1F0 was detected in a paraffin-embedded section of human renal cell carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Histone H1.0/H1F0 Antibody (M08821-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

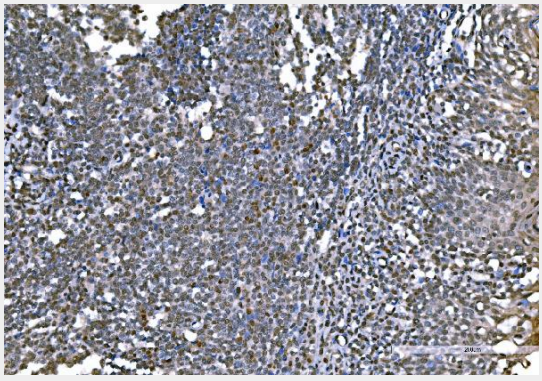

Figure 7. IHC analysis of Histone H1.0/H1F0 using anti-Histone H1.0/H1F0 antibody (M08821-2). Histone H1.0/H1F0 was detected in a paraffin-embedded section of human tonsil tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Histone H1.0/H1F0 Antibody (M08821-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

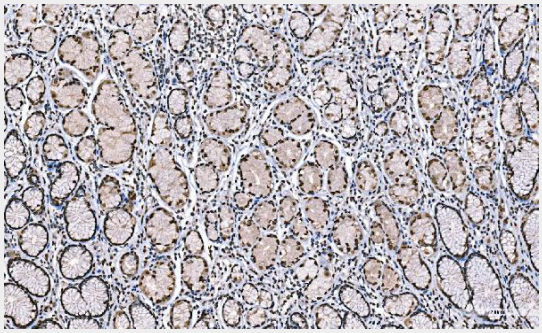

Figure 8. IHC analysis of Histone H1.0/H1F0 using anti-Histone H1.0/H1F0 antibody (M08821-2). Histone H1.0/H1F0 was detected in a paraffin-embedded section of human gastric carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then

incubated with 2 µg/ml mouse anti-Histone H1.0/H1F0 Antibody (M08821-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

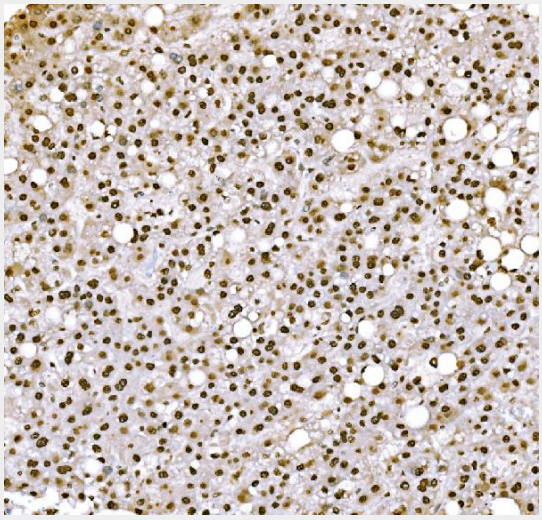

Figure 9. IHC analysis of Histone H1.0/H1F0 using anti-Histone H1.0/H1F0 antibody (M08821-2).
Histone H1.0/H1F0 was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 µg/ml mouse anti-Histone H1.0/H1F0 Antibody (M08821-2) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

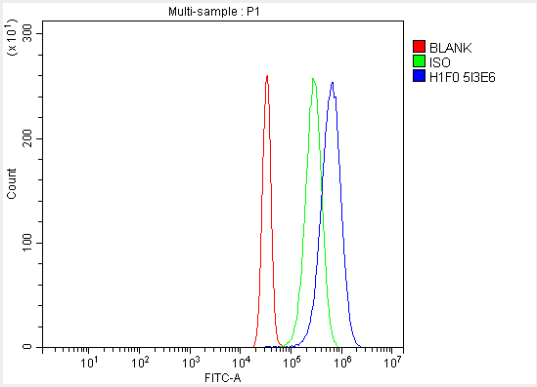

Figure 10. Flow Cytometry analysis of SiHa cells using anti-Histone H1.0/H1F0 antibody (M08821-2).
Overlay histogram showing SiHa cells stained with M08821-2 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Histone H1.0/H1F0 Antibody (M08821-2, 1 µg/1x10^6 cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 µg/1x10^6 cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 µg/1x10^6) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

Anti-Histone H1.0/H1F0 Antibody Picoband™ (monoclonal, 5I3E6) - Background

H1 histone family, member 0is a member of thehistonefamily of nuclearproteinswhich are a component ofchromatin. In humans, this protein is encoded by theH1F0gene. It is mapped to 22q13.1. 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 the DNA between the nucleosomes to form higher order chromatin structures. This gene is intronless and encodes a replication-independent histone that is a member of the histone H1 family.