Datasheet for ABIN5563978

# Recombinant anti-H2AFV antibody

2 Images

Go to Product page

## Overview

| | |
|---|---|
| Quantity: | 100 µg |
| Target: | H2AFV |
| Reactivity: | Drosophila melanogaster |
| Host: | Mouse |
| Antibody Type: | Recombinant Antibody |
| Clonality: | Monoclonal |
| Application: | ELISA, Western Blotting (WB), Chromatin Immunoprecipitation (ChIP) |

## Product Details

| | |
|---|---|
| Brand: | AbFlex® |
| Isotype: | IgG2a |
| Specificity: | Drosophila |
| Characteristics: | AbFlex™ Histone H2Av antibody (biotin) was expressed as full-length IgG with mouse immunoglobulin heavy and light chains (IgG2a isotype) in mammalian 293 cells. The antibody was directly labeled with biotin using the biotin ligase, BirA. The nucleosome is the smallest subunit of chromatin and consists of 147 base pairs of DNA wrapped around an octamer of core histone proteins (two each of Histone H2A, Histone H2B, Histone H3 and Histone H4). Histone H2A.Z (H2AZ, H2AFZ) is a histone H2A variant, a protein similar to canonical H2A but with different molecular identity and unique functions. H2A.Z is highly conserved during evolution. It plays an important role in basic cellular mechanisms such as gene activation, chromosome segregation, heterochromatic silencing and progression through the cell cycle.In Drosophila, the H2A variant corresponding to H2AZ is H2Av. H2Av is an essential protein in |

## Product Details

| | |
|---|---|
| | Drosophila and has been implicated in both activation and repression of transcription. H2Av is localized to centromeric heterochromatin in Drosophila and flies lacking H2Av have reduced levels of heterochromatin components at the centromeres. However, H2Av nucleosome distribution throughout the rest of the Drosophila genome correlates with genes that have an open and uniform chromatin architecture at promoter regions. |
| Purification: | Ni-NTA |

## Target Details

| | |
|---|---|
| Target: | H2AFV |
| Alternative Name: | Histone H2Av (H2AFV Products) |
| Molecular Weight: | 15 kDa |

## Application Details

| | |
|---|---|
| Application Notes: | ChIP: 10 µg per ChIP WB: 0.5 - 2 µg/mL dilution Bead-based ELISA: 7 - 560 ng/mL |
| Comment: | AbFlex® Recombinant Antibodies defined antibodies for highly specific, reproducible performance.<br>AbFlex® antibodies are recombinant antibodies (rAbs) that have been generated using defined DNA sequences to produce highly specific, reproducible antibodies. The unique advantages of the AbFlex® antibody are its flexible labeling and purification options. Each AbFlex® antibody contains a Sortase recognition motif (LPXTG) to covalently add fluorophores, enzymatic substrates (HRP, AP...etc), peptides, DNA, drugs or other labels to the antibody in a directed and reproducible manner using our Sortag-IT Labeling Kits. Every antibody also contains a 6xHis tag, which can be used with nickel-based purification systems, and an avidin tag sequence for enzymatic biotin conjugation using the biotin ligase, BirA.<br><br>AbFlex® antibodies are specifically labeled at the end of the constant region of the heavy chain to avoid interference with antigen recognition and functionality. This is important as it ensures the labeling process maintains the integrity of the antibody so signal is not diminished as a result of non-functional antibodies. In contrast, commonly used chemical labeling methods add labels to the antibody in a random fashion. The randomness of this process has a high potential to block the antigen-binding site and render the antibody ineffective. Chemical labeling can also deposit labels on the Fc region of the antibody which has the potential to obstruct interactions with protein A. |

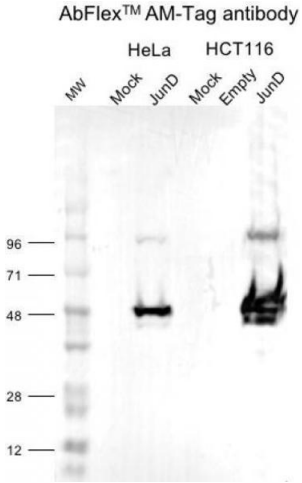
## Application Details

| | |
|---|---|
| Restrictions: | For Research Use only |

## Handling

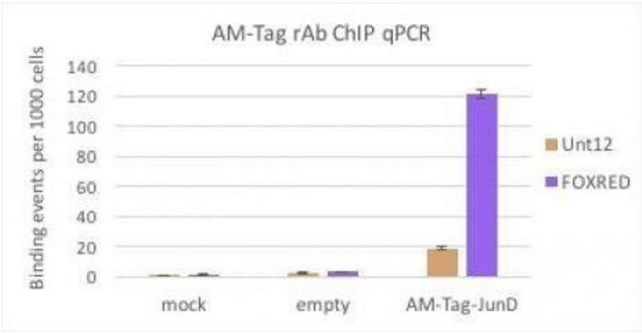
| | |
|---|---|
| Format: | Liquid |
| Buffer: | Purified IgG in 50 mM sodium phosphate pH 8.0, 150 mM NaCl, and 100 mM imidazole with 30 % glycerol and 0.035 % sodium azide |
| Preservative: | Sodium azide |
| Precaution of Use: | This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only. |
| Storage: | -20 °C |

## Images




### Western Blotting

**Image 1.** AM-Tag antibody (rAb) tested by Western Blot. Active Motif's pAM_1C_JunD Vector (Catalog No. 53044) was transfected, mock transfected or transfected with pAM_1C Empty Vector (Catalog No. 53023) into HeLa or HCT116 cells using 10 µg DNA and 30 µl FuGENE transfection reagent, 48 hours post-transfection nuclear lysates were prepared. 20 µg lysate was loaded per well. Western blot was performed using a 1:500 dilution of AM-Tag antibody.




### Chromatin Immunoprecipitation

**Image 2.** AM-Tag antibody (rAb) tested by ChIP. Active Motif's pAM_1C_JunD Vector (Catalog No. 53044) was transiently transfected, mock transfected or transfected with pAM_1C Empty Vector (#53023) into HCT116 cells. Chromatin was harvested according to the instructions in the Tag- Kit (#53022). 10 µg of the AM-Tag antibody was used to immunoprecipitate the cross-linked AM-Tag-JunD fusion protein. qPCR data shows enrichment of AM-Tag-JunD with the FOXRED qPCR primer set and little to no

enrichment in the mock transfections, empty vector transfections, or when using the negative control Unt12 qPCR primer set.