AbFlex® AM-Tag antibody (rAb) (biotin)

Catalog Nos: 91109, 91110
RRID: AB_2793778
Isotype: IgG2a
Application(s): ChIP, ELISA, WB
Reactivity: Human, Not Species Specific

Quantities: 100 µg, 10 µg
Purification: Ni-NTA
Host: Mouse
Concentration: 1 µg/µl
Molecular Weight: 15 kDa

Background: AbFlex® antibodies are recombinant antibodies (rAbs) that have been generated using defined DNA sequences to produce highly specific, reproducible antibodies. Each AbFlex antibody contains a 6xHis-Tag, an avidin tag sequence for enzymatic biotin conjugation using the biotin ligase, BirA, and a sortase recognition motif (LPXTG) to attach a variety of labels directly to the antibody including fluorophores, enzymatic substrates (HRP, AP), peptides, drugs as well as solid supports.

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 *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.

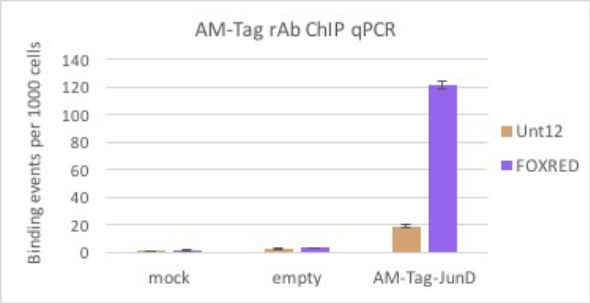
Immunogen: This antibody was raised against Active Motif's unique AM-Tag sequence for use with Tag-ChIP-IT® (Cat No. 53022) analysis.

Buffer: Purified IgG in 50mM sodium phosphate pH 8.0, 150mM NaCl, and 100mM imidazole with 30% glycerol and 0.035% sodium azide.

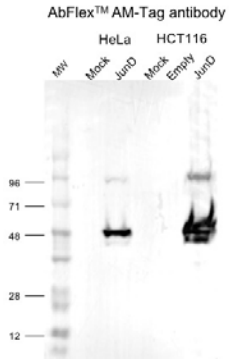
Application Notes:
Validated Applications:
ChIP: 10 µg per ChIP
WB: 0.5 - 2 µg/ml dilution
Bead-based ELISA: 7 - 560 ng/ml

Storage and Guarantee: Some products may be shipped at room temperature. This will not affect their stability or performance. Upon receipt, unconjugated antibodies may be stored at -20°C for up to 2 years. Fluorophore- & enzyme-conjugated antibodies should be stored at 4°C. Fluorophore-conjugated antibodies should be protected from light. Keep reagents on ice when not in storage; to avoid repeated freeze/thaw cycles, we recommend aliquoting items that will be stored frozen into single-use fractions prior to freezing. This product is guaranteed for 6 months from date of receipt.

This product is for research use only and is not for use in diagnostic procedures.



AbFlex® 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-ChIP-IT® 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.



AbFlex® 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.