

## BRD4 antibody (pAb)

**Catalog Nos:** 39909, 39010, 39910

**RRID:** AB\_2615059

**Isotype:** IgG

**Application(s):** ChIP, ChIP-Seq, IHC, WB

**Reactivity:** Human, Mouse

**Volumes:** 100 µl, 50 µl, 10 µl

**Purification:** Affinity Purified

**Host:** Rabbit

**Concentration:** 0.84 µg/µl

**Molecular Weight:** 180 kDa

**Background:** BRD4 (Bromodomain-containing protein 4, aka HUNK1) is a chromatin-associated protein with two bromo domains that binds acetylated histone H3 and H4. BRD4 is homologous to Xenopus MCAP, and like MCAP, BRD4 associates with chromosomes during mitosis, predominantly in the non-centromeric regions. A chromosomal aberration involving BRD4 (producing a BRD4-NUT fusion protein) is found in a rare, aggressive, and lethal carcinoma arising in midline organs of young people. BRD4 is involved in the expression of extracellular matrix gene expression, and its misregulation may be involved in breast cancer progression.

**Immunogen:** This BRD4 antibody was raised against a peptide within the C-terminal region of human BRD4.

**Buffer:** Purified IgG in 70 mM Tris (pH 8), 105 mM NaCl, 31 mM glycine, 0.07 mM EDTA, 30% glycerol and 0.035% sodium azide. Sodium azide is highly toxic.

### Application Notes:

Applications Validated by Active Motif:

ChIP: 5 - 10 µl per ChIP

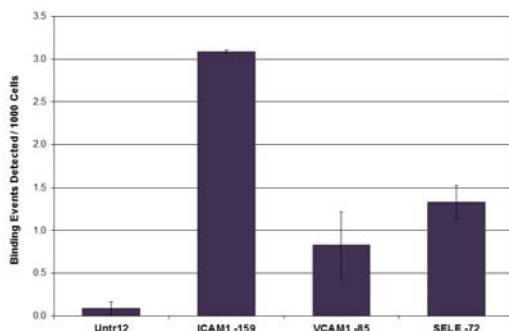
WB\*: 1:500 - 1:2,000 dilution

IHC (FFPE): 1:1000 dilution

\*Note: Many chromatin-bound proteins are not soluble in a low salt nuclear extract and fractionate to the pellet. Therefore, we recommend a High Salt / Sonication Protocol when preparing nuclear extracts for Western blot. For BRD4, we also offer AbFlex® BRD4 Recombinant Antibody (rAb). For details, see Catalog No. 91301.

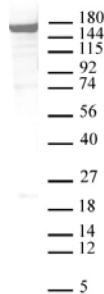
**Storage and Guarantee:** Some products may be shipped at room temperature. This will not affect their stability or performance. Avoid repeated freeze/thaw cycles by aliquoting items into single-use fractions for storage at -20°C for up to 2 years. Keep all reagents on ice when not in storage. This product is guaranteed for 12 months from date of receipt.

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



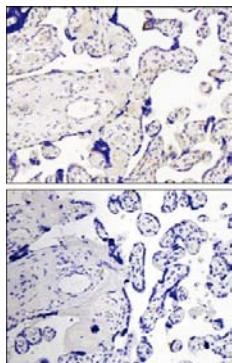
#### **BRD4 antibody (pAb) tested by ChIP.**

Chromatin immunoprecipitation (ChIP) was performed using the ChIP-IT® High Sensitivity Kit (Cat. No. 53040) with 10 µg of chromatin from TNF- $\alpha$  treated HT-29 colorectal adenocarcinoma cells and 5 µl BRD4 antibody. ChIP DNA was used in qPCR with the control primer pairs or gene-specific primer pairs as indicated. Data are presented as Binding Events Detected per 1000 Cells using Active Motif's Epigenetic Services normalization scheme which accounts for primer efficiency and the amount of chromatin used in the ChIP reaction.



#### **BRD4 antibody (pAb) tested by Western blot.**

Nuclear extract of HeLa cells (20 µg / lane) was probed with BRD4 antibody (pAb) at a dilution of 1:500. The addition of 0.05% Tween 20 in the blocking buffer and primary antibody incubation buffer can be used to aid in detection by Western blot. Individual optimization may be required.



#### **BRD4 antibody (pAb) tested by Immunohistochemistry**

Nuclear staining pattern is detected in Formalin-fixed, paraffin-embedded tissue sections from human placenta. Top Panel: BRD4 antibody at 1:1000 dilution. Bottom Panel: No primary antibody (2nd step antibody alone)