# abcam

## Product datasheet

## Anti-Brd4 antibody [EPR5150(2)] ab128874



ייבעדין RabMAb

★★★★ 17 Abreviews 139 References 画像数 13

#### 製品の概要

製品名 Anti-Brd4 antibody [EPR5150(2)]

製品の詳細 Rabbit monoclonal [EPR5150(2)] to Brd4

由来種 Rabbit

アプリケーション 適用あり: Flow Cyt (Intra), WB, IHC-P, ICC/IF

種交差性 交差種: Mouse, Human

交差が予測される動物種: Rat 🔷

免疫原 Synthetic peptide within Human Brd4 aa 150-250. The exact sequence is proprietary.

Database link: **O60885** 

ポジティブ・コントロール WB: HeLa, Caco-2, TT, RAW 264.7 and NIH/3T3 cell lysate. Wild-type HAP1 lysate. ICC/IF: HeLa

and HepG2 cells. IHC-P: Human colon carcinoma and brain tissue. Flow Cyt (intra): SW480 cells.

IP: HEK-239 cell lysate.

特記事項 This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility

- Improved sensitivity and specificity

- Long-term security of supply

- Animal-free production

For more information see here.

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb**® **patents**.

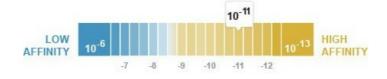
#### 製品の特性

製品の状態 Liquid

保存方法 Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long

term. Avoid freeze / thaw cycle.

 $K_D = 3.20 \times 10^{-11} M$ 解離定数(KD値)



## Learn more about K<sub>D</sub>

**バッファー** pH: 7.20

Preservative: 0.01% Sodium azide

Constituents: PBS, 40% Glycerol, 0.05% BSA

精製度 Protein A purified

**ポリモノ** モノクローナル **クローン名** EPR5150(2)

アイソタイプ IgG

#### アプリケーション

**The Abpromise guarantee** <u>Abpromise保証は、</u>次のテスト済みアプリケーションにおけるab128874の使用に適用されます アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
Flow Cyt (Intra)		1/50.
WB	* * * * * <b>(9)</b>	1/200 - 1/1000. Detects a band of approximately 152 kDa (predicted molecular weight: 152 kDa).
IHC-P	****(3)	1/200. Perform heat mediated antigen retrieval before commencing with IHC staining protocol.  For unpurified use at 1/40  See IHC antigen retrieval protocols.
ICC/IF	* * * * * <u>(4)</u>	1/200. For unpurified use at 1/40

## ターゲット情報

機能 Plays a role in a process governing chromosomal dynamics during mitosis.

**組織特異性** Ubiquitously expressed.

**関連疾患** Note=A chromosomal aberration involving BRD4 is found in a rare, aggressive, and lethal

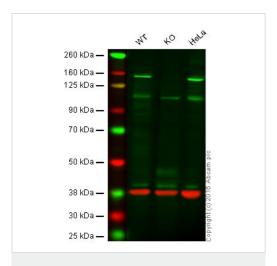
carcinoma arising in midline organs of young people. Translocation t(15;19)(q14;p13) with NUT

which produces a BRD4-NUT fusion protein.

**配列類似性** Contains 2 bromo domains.

細胞内局在 Nucleus.

#### 画像



Western blot - Anti-Brd4 antibody [EPR5150(2)] (ab128874)

Lane 1: Wild-type HAP1 cell lysate (20 µg)

Lane 2: Brd4 knockout HAP1 cell lysate (20 µg)

Lane 3: HeLa cell lysate (20 µg)

**Lanes 1 - 4:** Merged signal (red and green). Green - ab128874 observed at 150 kDa. Red - loading control, <u>ab8245</u>, observed at 37 kDa.

ab128874 was shown to recognize Brd4 when Brd4 knockout samples were used, along with additional cross-reactive bands. Wild-type and Brd4 knockout samples were subjected to SDS-PAGE. ab128874 and <u>ab8245</u> (loading control to GAPDH) were diluted at 1/1000 and 1/10 000 respectively and incubated overnight at 4°C. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preadsorbed (<u>ab216773</u>) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preadsorbed (<u>ab216776</u>) secondary antibodies at 1/10000 dilution for 1 hour at room temperature before imaging.

DAPI BRD4 CDK9 Merged

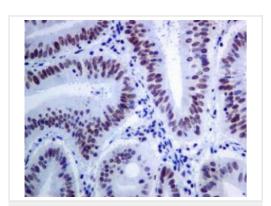
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Immunocytochemistry/ Immunofluorescence - Anti-Brd4 antibody [EPR5150(2)] (ab128874)

Ren et al PLoS Pathog. 2016 Oct; 12(10): e1005950. Published online 2016 Oct 20. doi: 10.1371/journal.ppat.1005950 Immunocytochemical analysis of HeLa cells showing co-localization of BRD4 using ab128874 at 1/500 dilution (red) with CDK9 (green) following infection with HSV-1. Cells were fixed with 4% paraformaldehyde (10 min at RT) and permeabilized with 0.2% Triton X-100 (10 min). AlexaFluor®-conjugated secondary antibodies were used at 1/1000 dilution. The nuclear counter stain is DAPI 9blue).

From Figure 5b of Ren et al.

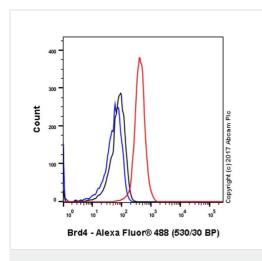
Reproduced under the Creative Commons Licence from Ren et al **PLoS Pathog**. 2016 Oct; 12(10): e1005950. Published online 2016 Oct 20. doi: **10.1371/journal.ppat.1005950** 



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Brd4 antibody
[EPR5150(2)] (ab128874)

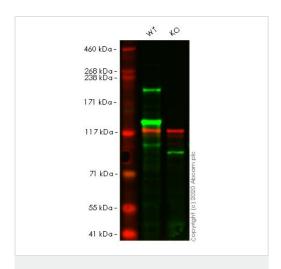
Unpurified ab128874 at 1/100 dilution staining Brd4 in human colon carcinoma tissue by Immunohistochemistry.

Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Flow Cytometry (Intracellular) - Anti-Brd4 antibody [EPR5150(2)] (ab128874)

Intracellular Flow Cytometry analysis of SW480 (Human colorectal adenocarcinoma epithelial cell) cells labeling Brd4 (red) with purified ab128874 at a 1/50 dilution (10µg/mL). Cells were fixed with 80% methanol and permeabilized with 0.1% Tween-20. A goat anti rabbit lgG (Alexa Fluorr<sup>®</sup>488) (**ab150077**) was used as the secondary antibody at a 1/2000 dilution. Black - Rabbit monoclonal lgG (Black) (**ab172730**). Blue (unlabeled control) - Cell without incubation with primary antibody and secondary antibody (Blue).



Western blot - Anti-Brd4 antibody [EPR5150(2)] (ab128874)

**All lanes :** Anti-Brd4 antibody [EPR5150(2)] (ab128874) at 1/200 dilution

Lane 1: Wild-type HAP1 cell lysate

Lane 2: BRD4 knockout HAP1 cell lysate

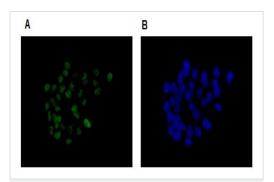
Lysates/proteins at 20 µg per lane.

Performed under reducing conditions.

Predicted band size: 152 kDa Observed band size: 220 kDa

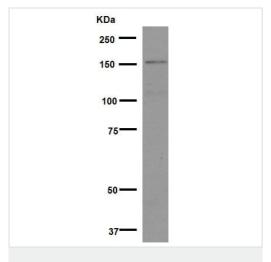
**Lanes 1 - 2:** Merged signal (red and green). Green - ab128874 observed at 220 kDa. Red - loading control Mouse anti Vinculin observed at 125 kDa.

ab128874 was shown to react with Brd4 in wild-type cells in Western blot with loss of signal observed in BRD4 knockout sample. Wild-type and BRD4 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3 % milk in TBS-T (0.1 % Tween<sup>®</sup>) before incubation with ab128874 and Mouse anti Vinculin overnight at 4 °C at a 1 in 200 dilution and a 1 in 20000 dilution respectively. Blots were incubated with Goat anti-Rabbit lgG H&L (IRDye<sup>®</sup> 800CW) preabsorbed (ab216773) and Goat anti-Mouse lgG H&L (IRDye<sup>®</sup> 680RD) preabsorbed (ab216776) secondary antibodies at 1 in 20000 dilution for 1 h at room temperature before imaging.



Immunocytochemistry/ Immunofluorescence - Anti-Brd4 antibody [EPR5150(2)] (ab128874)

Immunocytochemistry/Immunofluorescence analysis of HepG2 (Human liver cell line) cells labeling Brd4 with purified ab128874 at 1/100 (Panel A). Cells were fixed with 4% paraformaldehyde and permeabilized with 0.1% Triton X-100. An Alexa Fluor<sup>®</sup> 488-conjugated goat anti-rabbit IgG (1/200) was used as the secondary antibody. DAPI (blue) was used as the nuclear counterstain(Panel B).



Western blot - Anti-Brd4 antibody [EPR5150(2)] (ab128874)

Anti-Brd4 antibody [EPR5150(2)] (ab128874) at 1/1000 dilution (Purified) + NIH/3T3 (Mouse embryo fibroblast cell line) cell lysate at 10  $\mu g$ 

## **Secondary**

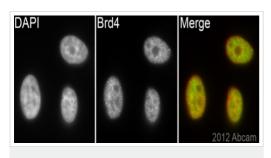
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

**Predicted band size:** 152 kDa **Observed band size:** 152 kDa



Western blot - Anti-Brd4 antibody [EPR5150(2)] (ab128874)

Different batches of ab128874 were tested on HeLa (Human cervix adenocarcinoma epithelial cell) lysate at 0.1  $\mu$ g/ml. 15  $\mu$ g of lysate was loaded in each lane. Bands observed at 152 kDa.

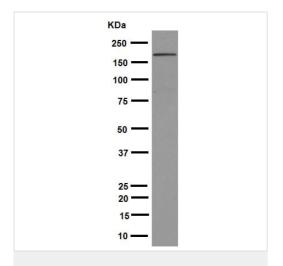


Immunocytochemistry/ Immunofluorescence - Anti-Brd4 antibody [EPR5150(2)] (ab128874)

Image courtesy of an abreview submitted by Dr. Kirk McManus, Univ. of Manitoba/Cancer Care MICB, Canada

Unpurified ab128874 (1/500) staining Brd4 in HeLa (Human epithelial cell line from cervix adenocarcinoma) cells (green). Cells were fixed in paraformaldehyde, permeabilized in 0.5% Triton X100/PBS and counterstained with DAPI in order to highlight the nucleus (red).

For further experimental details please refer to Abreview.



Western blot - Anti-Brd4 antibody [EPR5150(2)] (ab128874)

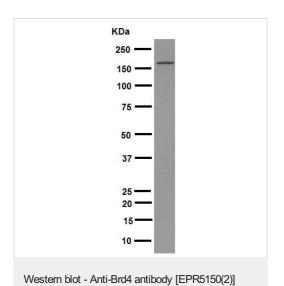
Anti-Brd4 antibody [EPR5150(2)] (ab128874) at 1/1000 dilution (purified) + HeLa (Human epithelial cell line from cervix adenocarcinoma) cell lysate at 10 µg

## **Secondary**

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

Predicted band size: 152 kDa Observed band size: 152 kDa

Blocking and Diluting buffer and concentration: 5% NFDM/TBST



(ab128874)

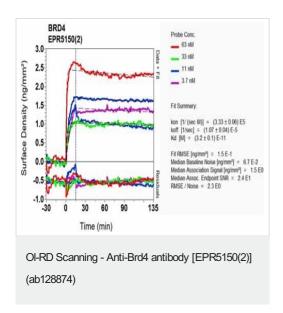
Anti-Brd4 antibody [EPR5150(2)] (ab128874) at 1/200 dilution (unpurified) + HeLa (Human epithelial cell line from cervix adenocarcinoma) cell lysate at 10 µg/ml

#### Secondary

Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/1000 dilution

**Predicted band size:** 152 kDa **Observed band size:** 152 kDa

Blocking and Diluting buffer and concentration: 5% NFDM/TBST



Equilibrium disassociation constant (K<sub>D</sub>)

Learn more about K<sub>D</sub>

#### Click here to learn more about K<sub>D</sub>



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