

# Product Datasheet

## BAF180/PB1 Antibody - BSA Free NB100-79833

Unit Size: 100 ul

Store at 4C. Do not freeze.

[www.novusbio.com](http://www.novusbio.com)



[technical@novusbio.com](mailto:technical@novusbio.com)

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**NB100-79833**

BAF180/PB1 Antibody - BSA Free

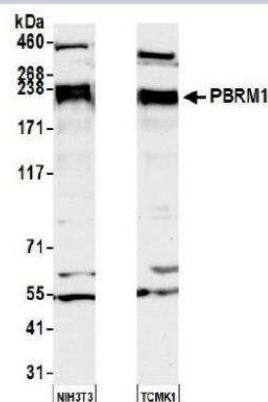
Product Information	
Unit Size	100 ul
Concentration	1.0 mg/ml
Storage	Store at 4C. Do not freeze.
Clonality	Polyclonal
Preservative	0.09% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	Tris-citrate/phosphate buffer, pH 7 to 8

Product Description	
Description	Novus Biologicals Rabbit BAF180/PB1 Antibody - BSA Free (NB100-79833) is a polyclonal antibody validated for use in IHC, WB, ICC/IF and IP. Anti-BAF180/PB1 Antibody: Cited in 4 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	55193
Gene Symbol	PBRM1
Species	Human, Mouse
Immunogen	The immunogen recognized by this antibody maps to a region between residue 1639 and 1689 of human polybromo 1 (BRG1-associated factor 180) using the numbering given in entry AAP34197.1 (GeneID 55193).

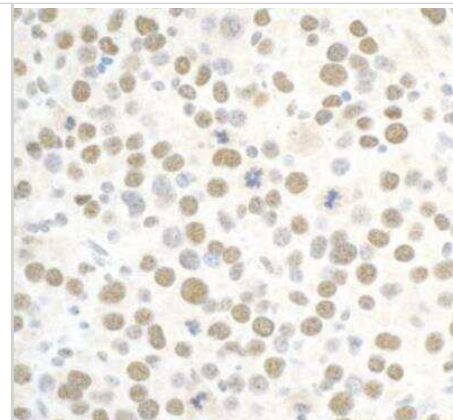
Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunoprecipitation
Recommended Dilutions	Western Blot 1:2000-1:10000, Immunohistochemistry 1:1000 - 1:5000, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation 2 - 10 ug/mg lysate, Immunohistochemistry-Paraffin 1:1000 - 1:5000
Application Notes	Epitope retrieval with citrate buffer pH6.0 is recommended for FFPE tissue sections. Use in ICC/IF reported in scientific literature (PMID: 28092369).

**Images**

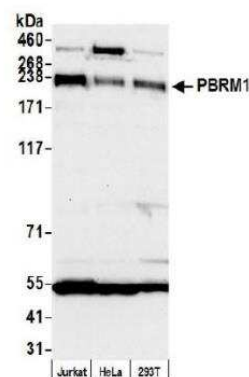
Western Blot: BAF180/PB1 Antibody [NB100-79833] - Whole cell lysate (50 ug) from NIH 3T3 and TCMK-1 prepared using NETN lysis buffer. Antibody: Affinity purified rabbit anti-PBRM1 antibody used for WB at 0.1 ug/ml. Detection: Chemiluminescence with an exposure time of 10 seconds.



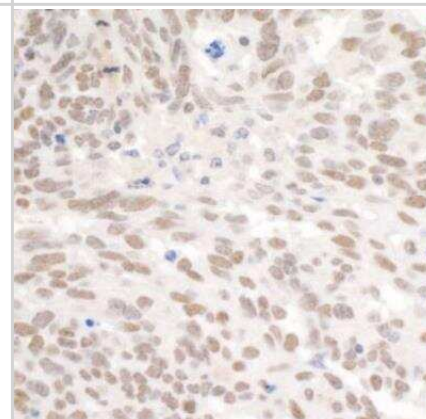
Immunohistochemistry-Paraffin: BAF180/PB1 Antibody [NB100-79833] - FFPE section of mouse renal cell carcinoma. Antibody: Affinity purified rabbit anti-PBRM1 used at a dilution of 1:5,000 (0.2ug/ml). Detection: DAB.



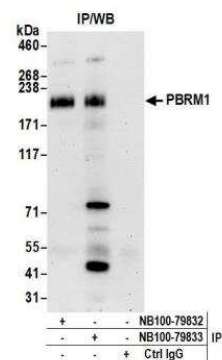
Western Blot: BAF180/PB1 Antibody [NB100-79833] - Whole cell lysate (50 ug) from Jurkat, HeLa, and HEK293T cells prepared using NETN lysis buffer. Antibody: Affinity purified rabbit anti-PBRM1 antibody used for WB at 0.1 ug/ml. Detection: Chemiluminescence with an exposure time of 10 seconds.



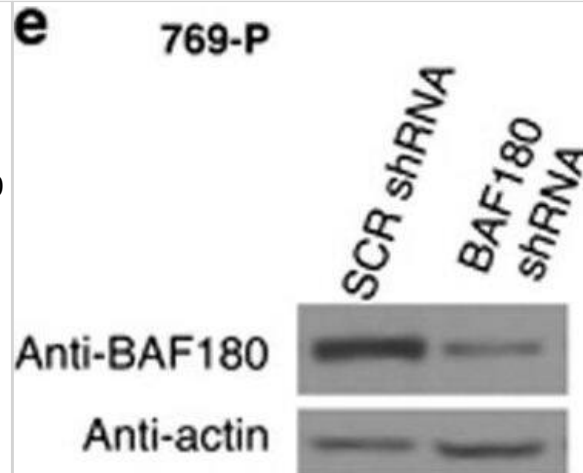
Immunohistochemistry-Paraffin: BAF180/PB1 Antibody [NB100-79833] - FFPE section of human ovarian carcinoma. Antibody: Affinity purified rabbit anti-PBRM1 used at a dilution of 1:5,000 (0.2ug/ml). Detection: DAB.



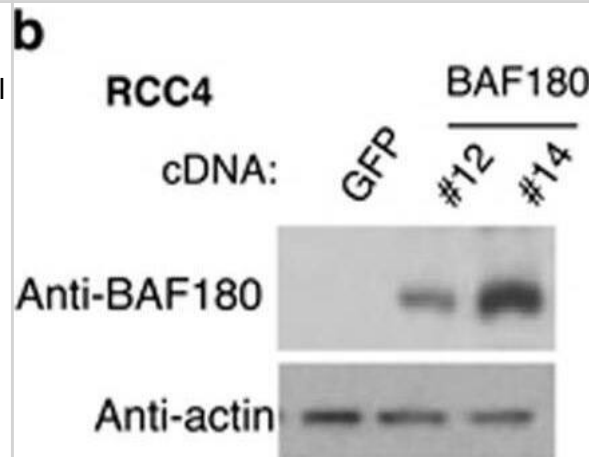
Immunoprecipitation: BAF180/PB1 Antibody [NB100-79833] - Detection of human PBRM1 by western blot of immunoprecipitates. Samples: Whole cell lysate (1.0 mg per IP reaction; 20% of IP loaded) from HeLa cells prepared using NETN lysis buffer. Antibodies: Affinity purified rabbit anti-PBRM1 antibody NB100-79833 used for IP at 3 ug per reaction. PBRM1 was also immunoprecipitated by rabbit anti-PBRM1 antibody NB100-79832. For blotting immunoprecipitated PBRM1, NB100-79833 was used at 0.4 ug/ml. Detection: Chemiluminescence with an exposure time of 30 seconds.



BAF180 knockdown in BAF180-expressing H2 ccRCC cell lines reduces cell survival/proliferation. (a, c, e) Western blot analyses of BAF180 protein in 786-O (a), KC-12 (c) and 769-P (e) H2 ccRCC cells targeted with non-targeting scramble (SCR) shRNA or BAF180 shRNA. (b, d, f) Quantification and photos of the clonogenic survival assay for 786-O (b), KC-12 (d) and 769-P (f) cells targeted with control scr-shRNA or BAF180 shRNA. (g) The location of BAF180 sgRNA #1 and #2 relative to the BAF180-coding region are shown (upper). The diagram (lower) shows the type and frequency of mutations in the BAF180 gene, found in ccRCC tumors, adapted from the article by Valera et al.<sup>7</sup> (h) DNA sequence and sequencing profiles of parental BAF180 DNA (parental) and BAF180 DNA after targeted by BAF180 sgRNA #1 (left) and #2 (right). The blue lines indicate the target sequences of sgRNAs and the red lines showing the protospacer adjacent motif sequence. The black arrows indicate the positions that double-strand DNA cleavages are expected to occur by the sgRNA-led Cas9 enzyme. The red boxes are to indicate the nucleotides that have been deleted by CRISPR-Cas9 system. SgRNA #2 Clone #1 shows a mixed sequence after the cleavage site, probably due to the fact that the deletion in the BAF180 allele 1 is different from the deletion in BAF180 allele 2. (i) Western blot analysis of BAF180 protein in 786-O/Cas9 cells expressing no sgRNA, or PBRM1 sgRNA #1 (clone #1) or #2 (clone #1). (j) Quantification and photos of the clonogenic survival assay for 786-O/Tet-on Cas9 clones without sgRNA expression, or with expression of BAF180 sgRNA #1 (clone #1) or #2 (clone #1). Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/28092369>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

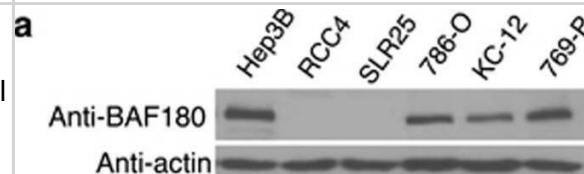
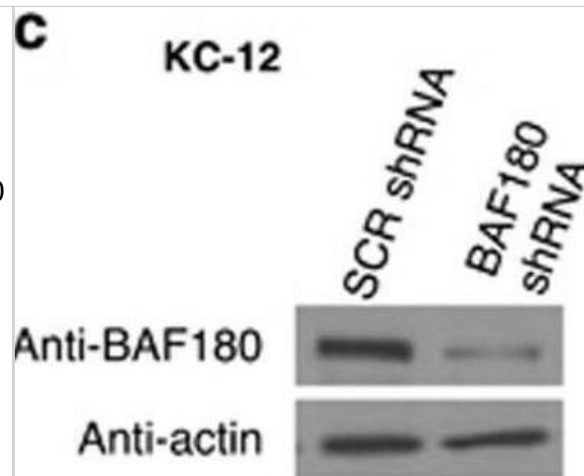


Re-expression of BAF180 in H1H2 ccRCC lines of RCC4 and SLR25 reduces cell survival/proliferation. (a) Western blot analysis of BAF180 protein in ccRCC cell lines. Beta actin serves as a protein-loading control for this and other WB analysis in the paper. (b) Western blot analysis of BAF180 protein in RCC4 cell clones stably transfected with a BAF180 expression vector or a vector-expressing GFP. (c) Quantification and photos of clonogenic survival assays for RCC4/BAF180 or GFP cells. Quantification was performed using MetaMorph software to measure the total area covered by colonies. (d) Western blot analysis of BAF180 protein expression in SLR25/Tet-on BAF180 cell line with (+) or without (-) doxycycline treatment. (e) Quantification and photos of clonogenic survival assay for SLR25/Tet-on BAF180 cells in the presence (+) or absence (-) of doxycycline. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/28092369>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

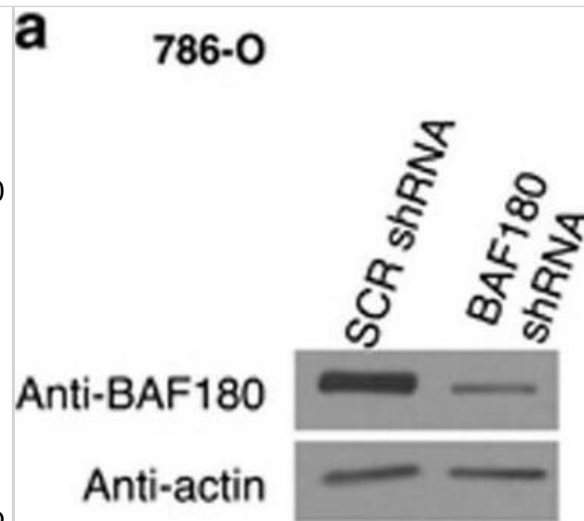


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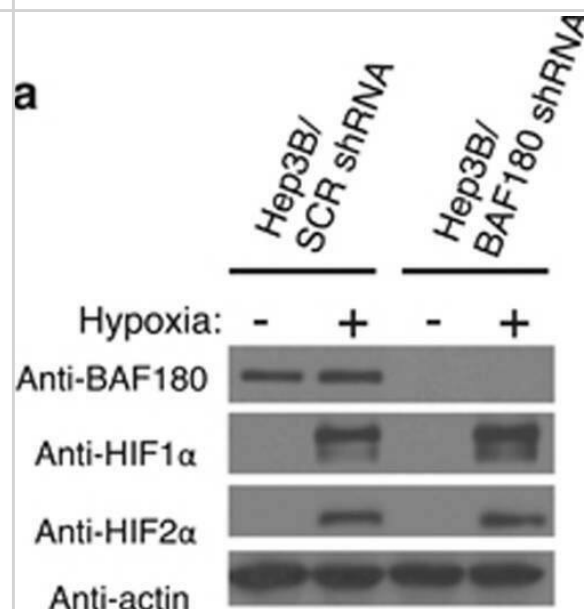
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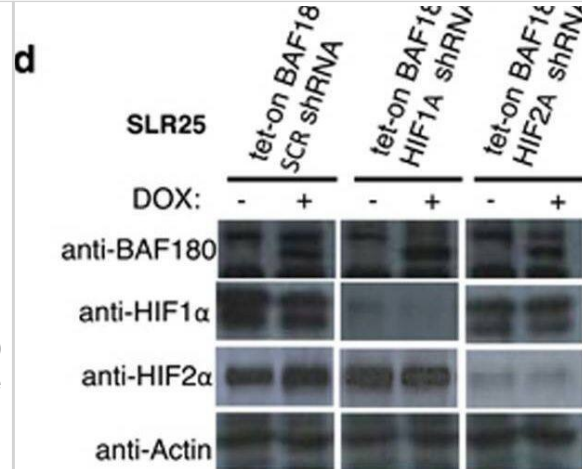
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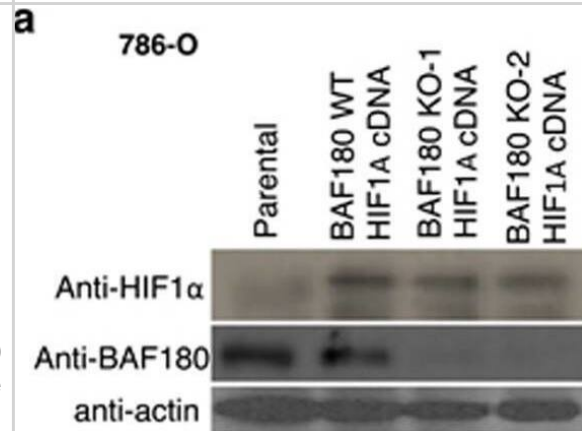
BAF180 is required for strong expression of HIF1 and HIF2 target genes in hypoxic (HX) Hep3B cells and pVHL-deficient ccRCC cell lines. (a) Western blot analysis of BAF180, HIF1 $\alpha$  and HIF2 $\alpha$  proteins in normoxic (NX) and HX Hep3B cells stably transduced with non-targeting control (SCR shRNA) or BAF180 shRNA. (b–e) qRT-PCR analysis of messenger RNA (mRNA) levels of HIF1 target genes (b), HIF2 target genes (c), HIF1/HIF2 common target genes (d) and BRG1-independent HIF target genes (e) in NX and HX Hep3B cells stably targeted with control or BAF180 shRNA. (f) qRT-PCR analysis of mRNA levels of known HIF2 target genes in 786-O/Tet-on Cas9 cells with no sgRNA or BAF180 sgRNA #1 (right). Expression levels of BAF180, HIF2 $\alpha$  and ARNT protein in these cells were also shown (Left). (g) qRT-PCR analysis of mRNA levels of known HIF1 and HIF2 target genes, as well as HIF and ARNT in RCC4 cells stably expressing GFP (control) or BAF180 protein. Clones #12 and #14 express low and high BAF180 protein levels, respectively. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/28092369>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



BAF180's tumor-suppressive or -promoting activity in ccRCC cell lines is HIF1 $\alpha$  or HIF2 $\alpha$  dependent. (a) Western blot analysis of HIF1 $\alpha$  and BAF180 protein in parental 786-0 (parental), 786-0 with HIF1 $\alpha$  re-expression (BAF180 WT/HIF1A cDNA) and 786-0 with HIF1 $\alpha$  re-expression, but PBRM1 knockout by sgRNA #1, clone #1 and clone #2 (BAF180 KO-1 or -2/HIF1A cDNA). (b, c) Quantification (b) and photos (c) of clonogenic survival assay in the indicated 786-O cells. (d) Western blot analysis of BAF180, HIF1 $\alpha$  and HIF2 $\alpha$  proteins in SLR25/Tet-on BAF180 cells stably targeted with control, HIF1A or HIF2A shRNA in the absence of (-) or presence of doxycycline (+). (e, f) Quantification (e) and photos (f) of clonogenic survival assay of the SLR25/Tet-on BAF180 cells stably targeted with control, HIF1A or HIF2A shRNA in the absence of (-) or presence of doxycycline (+). All the samples are normalized to SCR non-targeting shRNA without doxycycline treatment. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/28092369>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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## Publications

Chen W, Pilling D, Gomer RH The mRNA binding protein DDX3 mediates TGF- $\beta$ 1 upregulation of translation and promotes pulmonary fibrosis JCI insight 2023-02-23 [PMID: 36821384] (WB, IHC-Fr, Human, Mouse)

Murakami A, Wang L, Kalhorn S et al. Context-dependent role for chromatin remodeling component PBRM1/BAF180 in clear cell renal cell carcinoma Oncogenesis 2017-01-16 [PMID: 28092369] (WB, IF/IHC, Human)

Pawowski R, Muhl SM, Sulser T et al. Loss of PBRM1 expression is associated with renal cell carcinoma progression. Int J Cancer 2013-01-01 [PMID: 22949125]

Burrows AE, Smogorzewska A, Elledge SJ et al. Polybromo-associated BRG1-associated factor components BRD7 and BAF180 are critical regulators of p53 required for induction of replicative senescence. Proc Natl Acad Sci U S A 2010-08-01 [PMID: 20660729]



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Orders: nb-customerservice@bio-techne.com  
General: novus@novusbio.com

### **Products Related to NB100-79833**

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NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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### **Limitations**

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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