

# Product Datasheet

## PHIP Antibody - BSA Free NBP2-33883

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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



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

### Publications: 3

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Updated 12/4/2025 v.20.1

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**NBP2-33883**

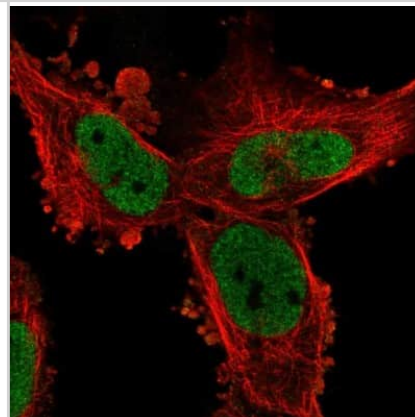
PHIP Antibody - BSA Free

<b>Product Information</b>	
<b>Unit Size</b>	0.1 ml
<b>Concentration</b>	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
<b>Storage</b>	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
<b>Clonality</b>	Polyclonal
<b>Preservative</b>	0.02% Sodium Azide
<b>Isotype</b>	IgG
<b>Purity</b>	Affinity purified
<b>Buffer</b>	PBS (pH 7.2) and 40% Glycerol
<b>Product Description</b>	
<b>Description</b>	Novus Biologicals Rabbit PHIP Antibody - BSA Free (NBP2-33883) is a polyclonal antibody validated for use in IHC, WB and ICC/IF. Anti-PHIP Antibody: Cited in 3 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
<b>Host</b>	Rabbit
<b>Gene ID</b>	55023
<b>Gene Symbol</b>	PHIP
<b>Species</b>	Human
<b>Reactivity Notes</b>	Immunogen displays the following percentage of sequence identity for non-tested species: Mouse (82%)
<b>Immunogen</b>	This antibody was developed against a recombinant protein corresponding to amino acids: NALVPGTIQVNGHGGQPSKLVKRGPRKPKVEVNTNSGEIIHKKRGRKPKKLQ YAKPEDLEQNNVHPIRDEVLPSSTCNFLSETNNVKEDLLQKKNRGGKPKRKM KTQKLDADLLVPASVKVLR
<b>Product Application Details</b>	
<b>Applications</b>	Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry
<b>Recommended Dilutions</b>	Immunohistochemistry 1:500 - 1:1000, Immunocytochemistry/ Immunofluorescence 0.25-2 ug/ml, Immunohistochemistry-Paraffin 1:500 - 1:1000
<b>Application Notes</b>	IHC-Paraffin, HIER pH 6 retrieval is recommended. ICC/IF, Fixation Permeabilization: Use PFA/Triton X-100.



## Images

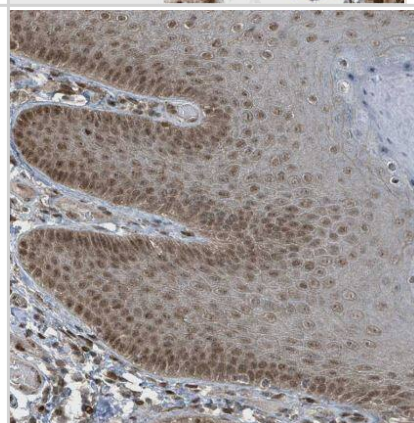
Immunocytochemistry/Immunofluorescence: PHIP Antibody [NBP2-33883] - Staining of human cell line U-251 MG shows localization to nucleoplasm. Antibody staining is shown in green.



Immunohistochemistry-Paraffin: PHIP Antibody [NBP2-33883] -Staining of human fallopian tube shows strong nuclear positivity in glandular cells.



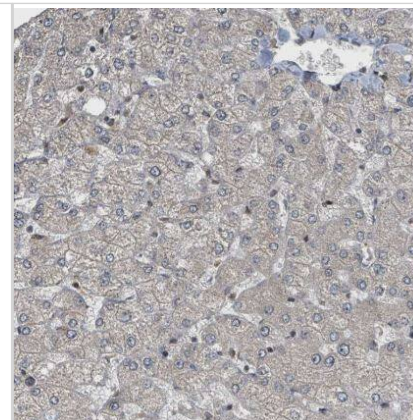
Immunohistochemistry-Paraffin: PHIP Antibody [NBP2-33883] -Staining of human skin shows moderate nuclear positivity in squamous epithelial cells.



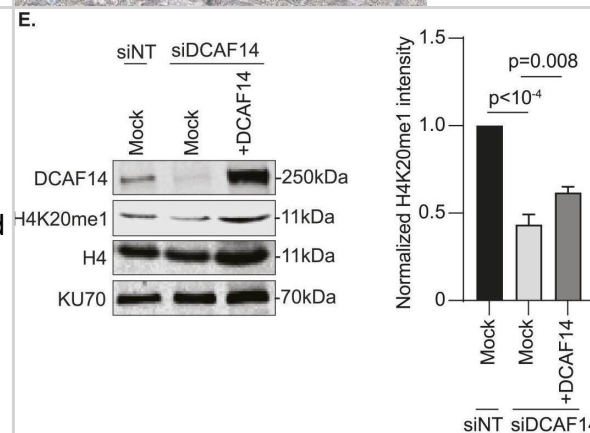
Immunohistochemistry-Paraffin: PHIP Antibody [NBP2-33883] -Staining of human testis shows strong nuclear positivity in subset of cells in seminiferous ducts.



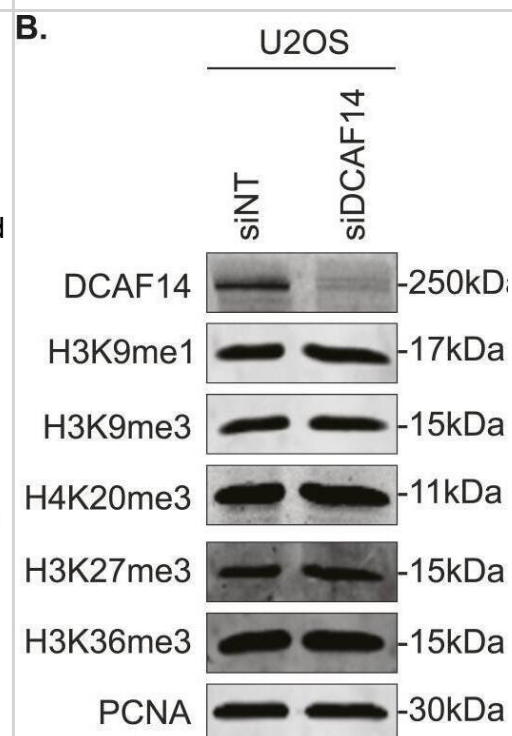
Immunohistochemistry-Paraffin: PHIP Antibody [NBP2-33883] -Staining of human liver shows no positivity in hepatocytes as expected.



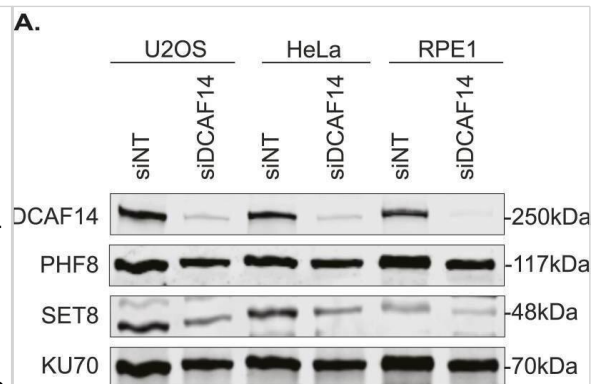
DCAF14 regulates monomethylation of H4K20. (A) Whole-cell lysates were extracted from U2OS cells transfected with the indicated siRNAs. Immunoblots were probed with the antibodies as shown. PCNA serves as a loading control. (B) Whole-cell lysates were extracted from siNT- and siDCAF14-transfected U2OS cells. Immunoblots were probed with the several histone methylation antibodies as shown. PCNA serves as a loading control. (C) U2OS cells were either transfected with the indicated siRNAs or treated with SET8-inhibitor UNC0379 for 4 h. Immunoblots were probed with the antibodies as shown. KU70 serves as a loading control. (D) siNT- and siDCAF14-transfected U2OS or HeLa cells were subjected to immunofluorescence analysis. Cells were immunostained for H4K20me1. Mean nuclei intensity was measured by quantitative imaging using DAPI-stained nuclei. Graphs represent mean  $\pm$  SEM using at least 450 nuclei. (E) Whole-cell lysates were extracted from siNT- and siDCAF14 (5'UTR)-transfected U2OS cells that were either mock transfected or overexpressing DCAF14. Immunoblots were probed with the antibodies as shown. KU70 serves as a loading control. Graph represents normalized H4K20me1 intensities to histone H4 from three biological replicates. Source data are available for this figure. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/37940188>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



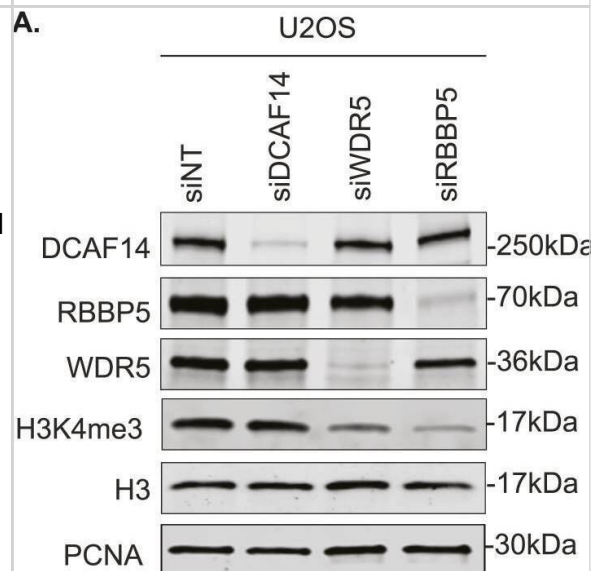
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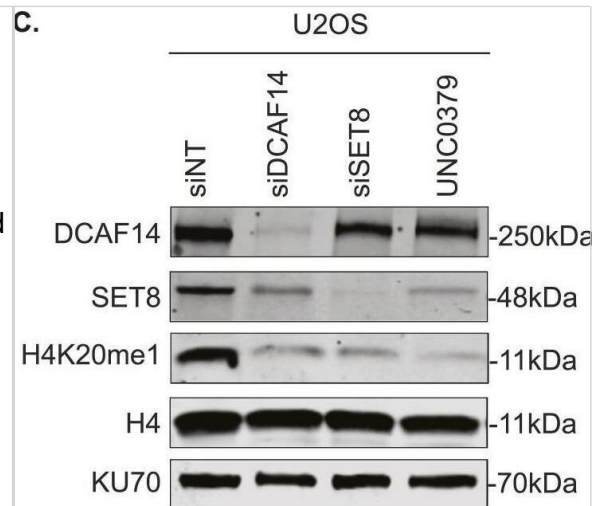
DCAF14 prevents increased turnover of SET8. (A) Whole-cell lysates were extracted from U2OS, HeLa or hTERT-RPE1 cells transfected with the indicated siRNAs. Immunoblots were probed with the antibodies as shown. KU70 serves as a loading control. (B) Whole cell lysates were extracted from siNT- and siDCAF14-transfected U2OS cells to analyze changes in SET8. Graph represents normalized SET8 intensities from four biological replicates. (C) Parental U2OS, DCAF14 KO, and DCAF14 cDNA-transfected KO cells were immunostained for SET8. Mean nuclei intensity was measured by quantitative imaging using DAPI-stained nuclei. Graphs represent mean  $\pm$  SEM using at least 3,500 nuclei. (D) Representative immunofluorescence images of siNT- and siDCAF14-transfected U2OS cells stained for DAPI, EdU, and SET8 are shown with overlay images. Scale bar = 10  $\mu$ m. (E) siNT- and siDCAF14-transfected U2OS cells were pulsed with EdU for 30 min before immunofluorescence analyses. Mean nuclei intensity of SET8 was measured by quantitative imaging after preselecting EdU+ and EdU- nuclei. Graphs represent mean  $\pm$  SEM using at least 250 nuclei. (F) siNT- and siDCAF14-transfected U2OS cells were pretreated with either DMSO or MG132 for 2 h and pulsed with EdU during the last 30 min of treatment. Cells were immunostained for SET8 and mean nuclei intensity was measured by quantitative imaging after preselecting EdU+ and EdU- nuclei. Graphs represent mean  $\pm$  SEM using at least 250 nuclei. Source data are available for this figure. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/37940188>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



DCAF14 regulates monomethylation of H4K20. (A) Whole-cell lysates were extracted from U2OS cells transfected with the indicated siRNAs. Immunoblots were probed with the antibodies as shown. PCNA serves as a loading control. (B) Whole-cell lysates were extracted from siNT- and siDCAF14-transfected U2OS cells. Immunoblots were probed with the several histone methylation antibodies as shown. PCNA serves as a loading control. (C) U2OS cells were either transfected with the indicated siRNAs or treated with SET8-inhibitor UNC0379 for 4 h. Immunoblots were probed with the antibodies as shown. KU70 serves as a loading control. (D) siNT- and siDCAF14-transfected U2OS or HeLa cells were subjected to immunofluorescence analysis. Cells were immunostained for H4K20me1. Mean nuclei intensity was measured by quantitative imaging using DAPI-stained nuclei. Graphs represent mean  $\pm$  SEM using at least 450 nuclei. (E) Whole-cell lysates were extracted from siNT- and siDCAF14 (5'UTR)-transfected U2OS cells that were either mock transfected or overexpressing DCAF14. Immunoblots were probed with the antibodies as shown. KU70 serves as a loading control. Graph represents normalized H4K20me1 intensities to histone H4 from three biological replicates. Source data are available for this figure. Image collected and cropped by CiteAb from the following open publication (<https://pubmed.ncbi.nlm.nih.gov/37940188>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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## Publications

Tirado-Class N, Hathaway C, Nelligan A et al. DCAF14 regulates CDT2 to promote SET8-dependent replication fork protection Life science alliance 2024-01-01 [PMID: 37940188] (WB)

Tirado-Class N, Hathaway C, Chung WK, Dungrawala H PHIP variants associated with Chung-Jansen syndrome disrupt replication fork stability and genome integrity Cold Spring Harbor molecular case studies 2022-07-21 [PMID: 35863899]

Townsend A, Lora G, Engel J, et al. DCAF14 promotes stalled fork stability to maintain genome integrity Cell reports 2021-01-26 [PMID: 33503431]



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### **Products Related to NBP2-33883**

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NBP2-33883PEP	PHIP Recombinant Protein Antigen
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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