

# Product Datasheet

## Host Cell Factor 1/HCFC1 Antibody NB100-68209

Unit Size: 0.1 ml

Store at 4C. Do not freeze.

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**NB100-68209****Host Cell Factor 1/HCF1 Antibody****Product Information**

<b>Unit Size</b>	0.1 ml
<b>Concentration</b>	0.2 mg/ml
<b>Storage</b>	Store at 4C. Do not freeze.
<b>Clonality</b>	Polyclonal
<b>Preservative</b>	0.09% Sodium Azide
<b>Isotype</b>	IgG
<b>Purity</b>	Immunogen affinity purified
<b>Buffer</b>	TBS and 0.1% BSA

**Product Description**

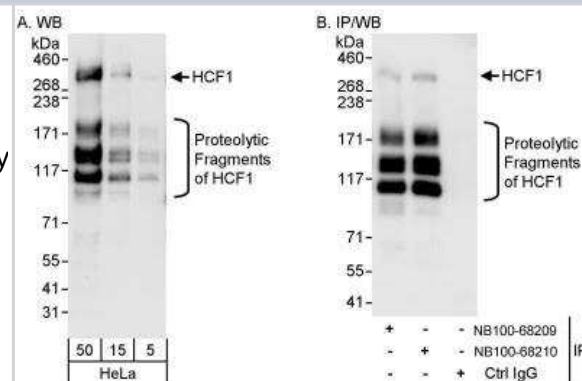
<b>Host</b>	Rabbit
<b>Gene ID</b>	3054
<b>Gene Symbol</b>	HCFC1
<b>Species</b>	Human
<b>Immunogen</b>	The immunogen recognized by this antibody maps to a region between residue 1700 and 1750 of human host cell factor C1 (VP16-accessory protein) using the numbering given in entry NP_005325.2 (GenelD 3054).

**Product Application Details**

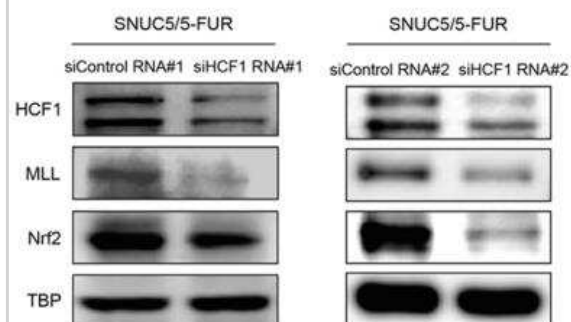
<b>Applications</b>	Western Blot, Immunoprecipitation, Knockdown Validated
<b>Recommended Dilutions</b>	Western Blot 1:2000-1:10000, Immunoprecipitation 2-5 ug/mg lysate, Knockdown Validated

**Images**

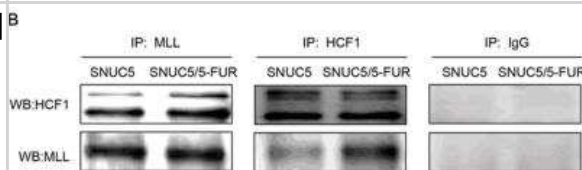
Western Blot: Host Cell Factor 1/HCF1 Antibody [NB100-68209] - Samples: Whole cell lysate (5, 15 and 50 ug for WB; 1 mg for IP, 20% of IP loaded) from HeLa cells. Antibodies: Affinity purified rabbit anti-HCF1 antibody NB100-68209 used for WB at 0.04 ug/ml (A) and 1 ug/ml (B) and used for IP at 3 ug/mg lysate. HCF1 was also immunoprecipitated by rabbit anti-HCF1 antibody NB100-68210, which recognizes a downstream epitope. Detection: Chemiluminescence with exposure times of 30 seconds (A) and 10 seconds (B).



Knockdown Validated: Host Cell Factor 1/HCF1 Antibody [NB100-68209] - Expression pattern of HCF1, MLL, and Nrf2 in SNUC5/5-FUR cells was determined by Western blot analysis. Image collected and cropped by CiteAb from the following publication (<https://www.oncotarget.com/lookup/doi/10.18632/oncotarget.9745>) licensed under a CC-BY license.

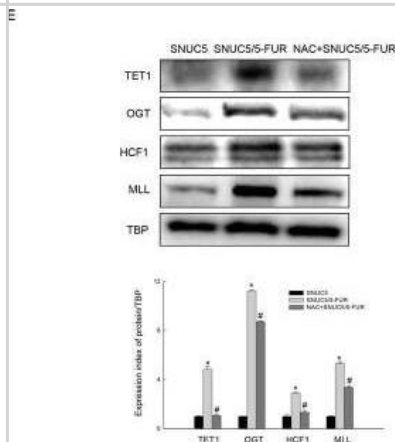


Immunoprecipitation: Host Cell Factor 1/HCF1 Antibody [NB100-68209]<sup>B</sup> - Interaction between MLL and HCF1 was examined by immunoprecipitation analysis using anti-MLL and anti-HCF1 antibodies followed by Western blotting with anti-HCF1 and anti-MLL antibodies. Image collected and cropped by CiteAb from the following publication (<https://www.oncotarget.com/lookup/doi/10.18632/oncotarget.9745>) licensed under a CC-BY license.

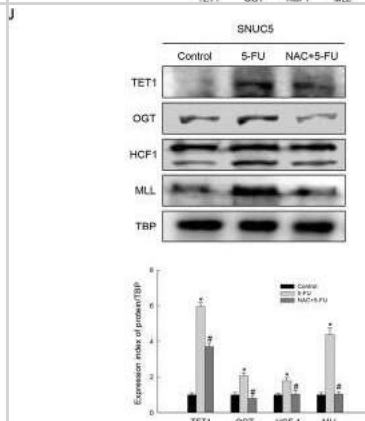


Western Blot: Host Cell Factor 1/HCF1 Antibody [NB100-68209] - 5-FU-produced ROS involved in histone methyltransferase-mediated Nrf2 expression. E. Expression patterns of TET1, OGT, HCF1, & MLL in NAC pre-treated SNUC5/5-FUR cells determined by WB analysis.

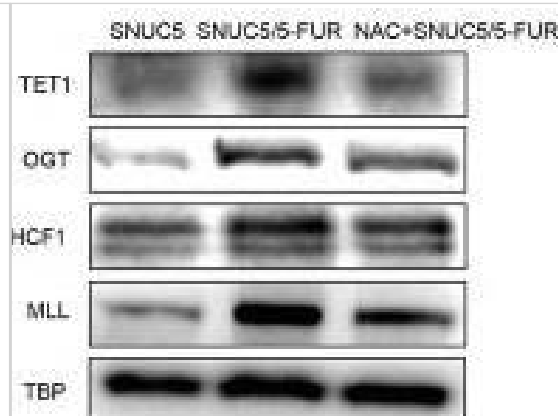
\*Significantly different from SNUC5 cells ( $p < 0.05$ ), & #significantly different from SNUC5/5-FUR cells ( $p < 0.05$ ). Also, SNUC5 cells pre-treated with 500  $\mu$ M of NAC & incubated for an additional 1 h at 37°. Cells then treated with 140  $\mu$ M 5-FU for 48 h. 10  $\mu$ M of DHR123 was added to plate & incubated for an additional 30 min at 37°C. Image collected & cropped by CiteAb from the following publication (<https://www.oncotarget.com/lookup/doi/10.18632/oncotarget.9745>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



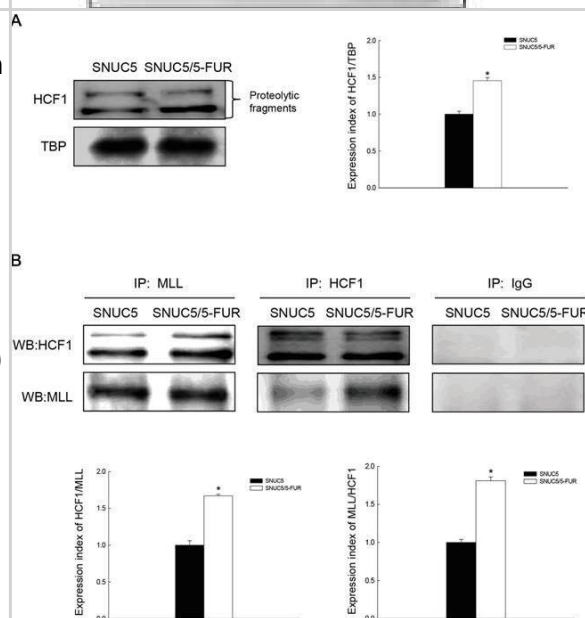
Western Blot: Host Cell Factor 1/HCF1 Antibody [NB100-68209] - 5-FU-produced ROS involved in histone methyltransferase-mediated Nrf2 expression. J. Expression of TET1 & interaction proteins detected by WB analysis. \*Significantly different from SNUC5 cells ( $p < 0.05$ ), & #significantly different from 5-FU-treated SNUC5 cells ( $p < 0.05$ ). Image collected & cropped by CiteAb from the following publication (<https://www.oncotarget.com/lookup/doi/10.18632/oncotarget.9745>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



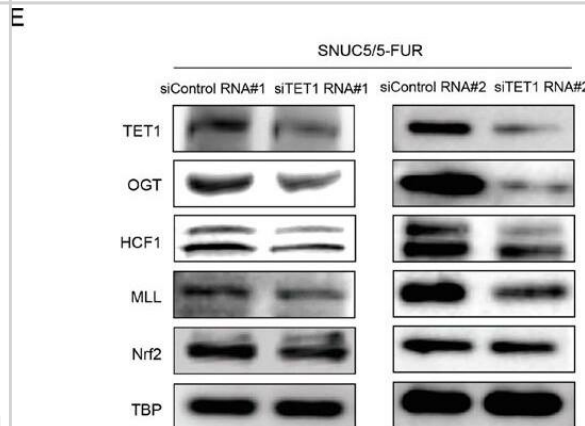
Western Blot: Host Cell Factor 1/HCF1 Antibody [NB100-68209] - 5-FU-produced ROS involved in histone methyltransferase-mediated Nrf2 expression. F. The intracellular ROS level was detected by flow cytometry. Image collected & cropped by CiteAb from the following publication (<https://www.oncotarget.com/lookup/doi/10.18632/oncotarget.9745>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



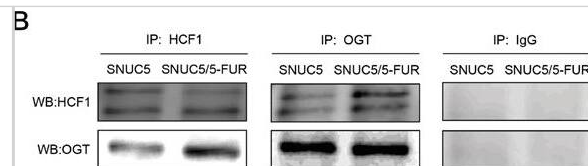
Western Blot: Host Cell Factor 1/HCF1 Antibody [NB100-68209] - Effect of MLL-HCF1 interaction on histone methylation & Nrf2 expression in SNUC5/5-FUR cells. A. HCF1 expression was determined by Western blotting. \*Significantly different from SNUC5 cells ( $p < 0.05$ ). B. Interaction between MLL & HCF1 was examined by immunoprecipitation analysis using anti-MLL & anti-HCF1 antibodies followed by Western blotting with anti-HCF1 & anti-MLL antibodies. \*Significantly different from SNUC5 cells ( $p < 0.05$ ). C. Interaction between MLL & HCF1 was assessed by PLA. Each green spot represents for a single interaction (MLL & HCF1) & DNA was stained with DAPI. \*Significantly different from SNUC5 cells ( $p < 0.05$ ). The cells were transfected with non-targeting siRNA (siControl) or siHCF1 RNA for 24 h. D. Expression pattern of MLL mRNA in SNUC5/5-FUR cells was determined by RT-PCR analysis. \*Significantly different from siControl-transfected cells ( $p < 0.05$ ). E. Expression pattern of HCF1, MLL, & Nrf2 in SNUC5/5-FUR cells was determined by Western blot analysis. \*Significantly different from siControl-transfected cells ( $p < 0.05$ ). Image collected & cropped by CiteAb from the following publication (<https://www.oncotarget.com/lookup/doi/10.18632/oncotarget.9745>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



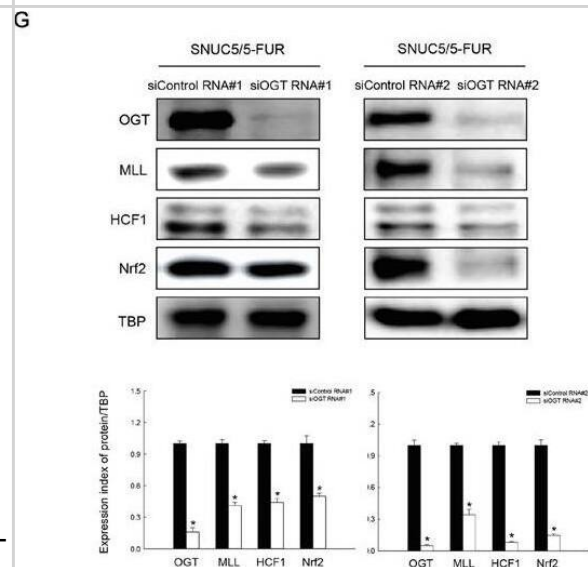
Western Blot: Host Cell Factor 1/HCF1 Antibody [NB100-68209] - Relation of OGT-TET1 interaction on histone methylation & Nrf2 expression in SNUC5/5-FUR cells. A. Interaction between OGT & TET1 was examined by immunoprecipitation analyses using anti-OGT & anti-TET1 antibodies followed by Western blotting with anti-TET1 & anti-OGT antibodies. B. Interaction between OGT & TET1 was assessed by using PLA. Each green spot represents for a single interaction (OGT & TET1) & DNA was stained with DAPI. \*Significantly different from SNUC5 cells ( $p < 0.05$ ). C. The O-GlcNAcylated TET1 or O-GlcNAcylated OGT was examined by immunoprecipitation analyses using anti-O-GlcNAc antibody followed by Western blotting with anti-TET1 & anti-OGT antibodies. The cells were transfected with non-targeting siRNA (siControl) or siOGT RNA or siTET1 RNA for 24 h. D. Expression pattern of OGT & TET1 in SNUC5/5-FUR cells was determined by Western blot analysis. \*Significantly different from siControl-transfected cells ( $p < 0.05$ ). E. Expression pattern of TET1, OGT, HCF1, MLL, & Nrf2 in SNUC5/5-FUR cells was determined by Western blot analysis. \*Significantly different from siControl-transfected cells ( $p < 0.05$ ). Image collected & cropped by CiteAb from the following publication (<https://www.oncotarget.com/lookup/doi/10.18632/oncotarget.9745>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



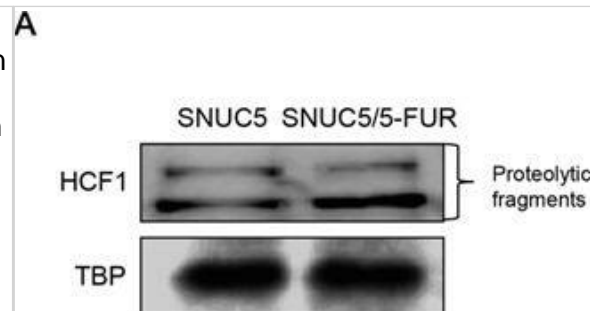
Western Blot: Host Cell Factor 1/HCF1 Antibody [NB100-68209] - Involvement of OGT in histone methylase MLL/COMPASS-like complex-mediated Nrf2 expression in SNUC5/5-FUR cells. A. OGT & O-GlcNAc expression was determined by Western blotting. \*Significantly different from SNUC5 cells ( $p < 0.05$ ). B. Interaction between HCF1 & OGT was examined by immunoprecipitation analysis using anti-HCF1 & anti-OGT antibodies followed by Western blotting with anti-HCF1 & anti-OGT antibodies. C. Interaction between HCF1 & OGT was assessed by using PLA. Each green spot represents for a single interaction (HCF1 & OGT) & DNA was stained with DAPI. \*Significantly different from SNUC5 cells ( $p < 0.05$ ). D. Interaction between MLL & OGT was examined by immunoprecipitation analysis using anti-MLL & anti-OGT antibodies followed by Western blotting with anti-OGT & anti-MLL antibodies. E. Interaction between MLL & OGT was assessed by using PLA. Each green spot represents for a single interaction (MLL & OGT) & DNA was stained with DAPI. \*Significantly different from SNUC5 cells ( $p < 0.05$ ). The cells were transfected with non-targeting siRNA (siControl) or siOGT RNA for 24 h. F. Expression pattern of MLL mRNA in SNUC5/5-FUR cells was determined by RT-PCR analysis. \*Significantly different from siControl-transfected cells ( $p < 0.05$ ). G. Expression pattern of OGT, MLL, HCF1, & Nrf2 in SNUC5/5-FUR cells was determined by Western blot analysis. \*Significantly different from siControl-transfected cells ( $p < 0.05$ ). Image collected & cropped by CiteAb from the following publication (<https://www.oncotarget.com/lookup/doi/10.18632/oncotarget.9745>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



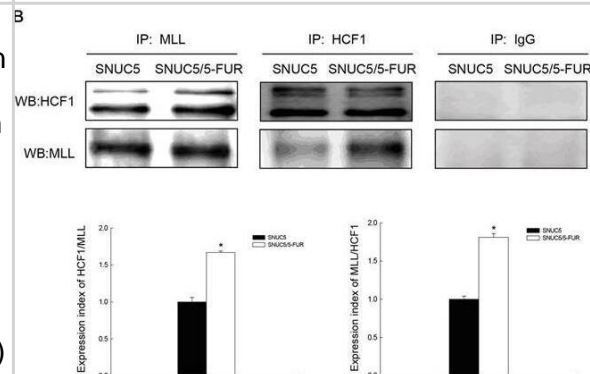
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## Publications

Pugacheva, EM;Bhatt, DN;Rivero-Hinojosa, S;Tajmul, M;Fedida, L;Price, E;Ji, Y;Loukinov, D;Strunnikov, AV;Ren, B;Lobanenkov, VV; BORIS/CTCF epigenetically reprograms clustered CTCF binding sites into alternative transcriptional start sites *Genome biology* 2024-01-31 [PMID: 38297316]

Partridge EC, Chhetri SB, Prokop JW et al. Occupancy maps of 208 chromatin-associated proteins in one human cell type *Nature* 2020-07-30 [PMID: 32728244] (Flow Cytometry)

Kang KA, Piao MJ, Ryu YS et al. Interaction of DNA demethylase and histone methyltransferase upregulates Nrf2 in 5-fluorouracil-resistant colon cancer cells. *Oncotarget*. 2016-06-28 [PMID: 27259240] (WB, Human)

Parker JB, Palchaudhuri S, Yin H et al. A transcriptional regulatory role of the THAP11-HCF-1 complex in colon cancer cell function. *Mol Cell Biol* 2012-05-01 [PMID: 22371484]

Rizki G, Iwata TN, Li J et al. The evolutionarily conserved longevity determinants HCF-1 and SIR-2.1/SIRT1 collaborate to regulate DAF-16/FOXO. *PLoS Genet* 2011-09-01 [PMID: 21909281]



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General: novus@novusbio.com

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HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
210-TA-005	TNF-alpha [Unconjugated]

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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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