

# Product Datasheet

## NDRG2 Antibody (6A5) - Azide and BSA Free H00057447-M03

Unit Size: 0.1 mg

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

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**Publications: 20**

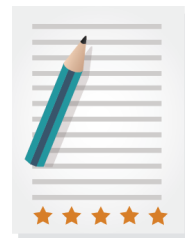
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Updated 9/9/2025 v.20.1

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**H00057447-M03**

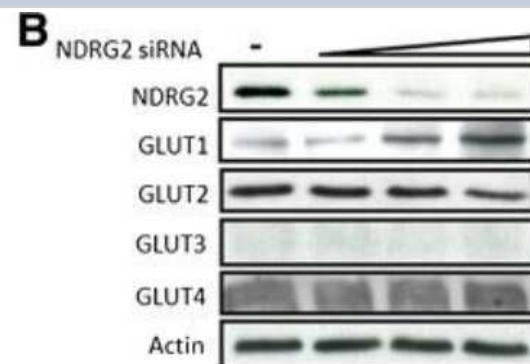
NDRG2 Antibody (6A5) - Azide and BSA Free

| Product Information         |                                                                                                                                                                                                                                                                               |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Unit Size                   | 0.1 mg                                                                                                                                                                                                                                                                        |
| Concentration               | Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.                                                                                                                                                              |
| Storage                     | Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.                                                                                                                                                                                                                  |
| Clonality                   | Monoclonal                                                                                                                                                                                                                                                                    |
| Clone                       | 6A5                                                                                                                                                                                                                                                                           |
| Preservative                | No Preservative                                                                                                                                                                                                                                                               |
| Isotype                     | IgG1 Kappa                                                                                                                                                                                                                                                                    |
| Purity                      | IgG purified                                                                                                                                                                                                                                                                  |
| Buffer                      | In 1x PBS, pH 7.4                                                                                                                                                                                                                                                             |
| Product Description         |                                                                                                                                                                                                                                                                               |
| Description                 | Novus Biologicals Mouse NDRG2 Antibody (6A5) - Azide and BSA Free (H00057447-M03) is a monoclonal antibody validated for use in IHC, WB, ELISA and ICC/IF. Anti-NDRG2 Antibody: Cited in 20 publications. All Novus Biologicals antibodies are covered by our 100% guarantee. |
| Host                        | Mouse                                                                                                                                                                                                                                                                         |
| Gene ID                     | 57447                                                                                                                                                                                                                                                                         |
| Gene Symbol                 | NDRG2                                                                                                                                                                                                                                                                         |
| Species                     | Human                                                                                                                                                                                                                                                                         |
| Specificity/Sensitivity     | NDRG2 - NDRG family member 2                                                                                                                                                                                                                                                  |
| Immunogen                   | NDRG2 (NP_057334, 1 a.a. ~ 96 a.a) partial recombinant protein with GST tag. MW of the GST tag alone is 26 KDa.<br>MAELQEVQITEEKPLLPGQTPEAAKTHSVETPYGSVTFTVYGTPKPKRPAILTY<br>HDVGLNYKSCFQPLFQFEDMQEIIQNFRVHVVDAPGMEEGAP                                                       |
| Notes                       | This product is produced by and distributed for Abnova, a company based in Taiwan.                                                                                                                                                                                            |
| Product Application Details |                                                                                                                                                                                                                                                                               |
| Applications                | Western Blot, Immunohistochemistry-Paraffin, ELISA, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Knockdown Validated                                                                                                                                         |
| Recommended Dilutions       | Western Blot 1:500, ELISA, Immunohistochemistry, Immunocytochemistry/Immunofluorescence, Immunohistochemistry-Paraffin, Knockdown Validated                                                                                                                                   |
| Application Notes           | Antibody reactive against cell lysate and recombinant protein for western blot. It has also been used for ELISA.                                                                                                                                                              |

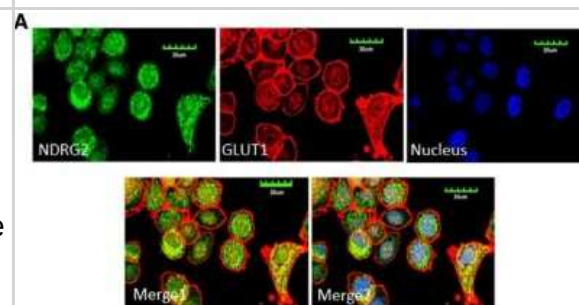


## Images

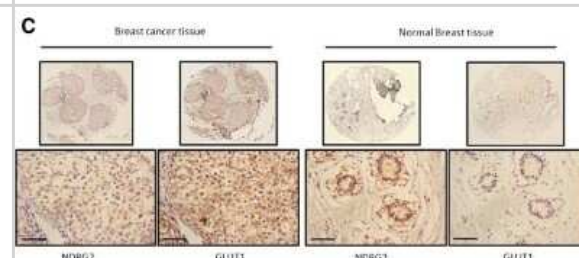
Western Blot: NDRG2 Antibody (6A5) [H00057447-M03] - NDRG2 downregulates GLUT1 by promoting its ubiquitination. ((B), (D) and (F) T-47D cells were transfected with NDRG2 small interfering RNA (siRNA) 10, 25 and 100 pmol or control siRNA for 48 hours. Next, cell proteins or mRNA were extracted and analysed by immunoblotting (B). beta-actin was used as a loading control. Image collected and cropped by CiteAb from the following publication (<https://breast-cancer-research.biomedcentral.com/articles/10.1186/bcr3628>) licensed under a CC-BY license.



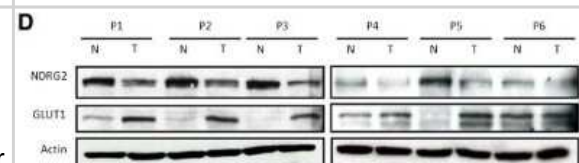
Immunocytochemistry/Immunofluorescence: NDRG2 Antibody (6A5) [H00057447-M03] - NDRG2 interacts with GLUT1. SK-BR-3 cells were fixed and incubated with primary antibodies against N-myc downstream-regulated gene 2 (NDRG2) or glucose transporter 1 (GLUT1) and with fluorescein isothiocyanate or a cyanine 3 secondary antibody. Green fluorescence indicates NDRG2 expression, red fluorescence indicates GLUT1 expression and blue fluorescence indicates nuclear staining. The results of the merged images reveal that NDRG2 and GLUT1 were colocalised in the cytoplasm. Image collected and cropped by CiteAb from the following publication (<https://breast-cancer-research.biomedcentral.com/articles/10.1186/bcr3628>) licensed under a CC-BY license.



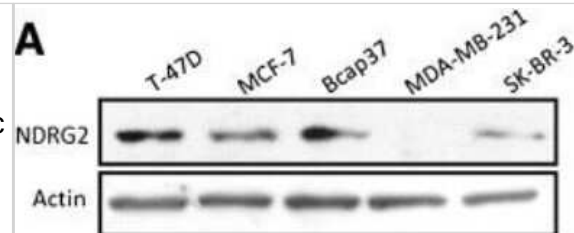
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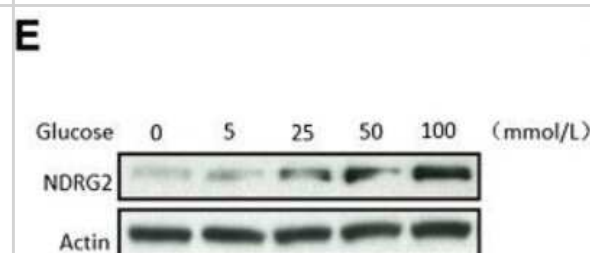
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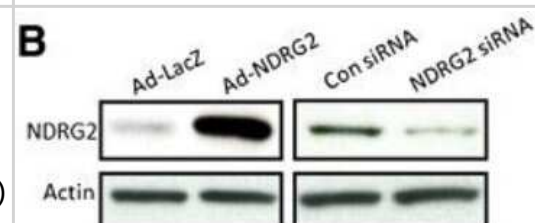
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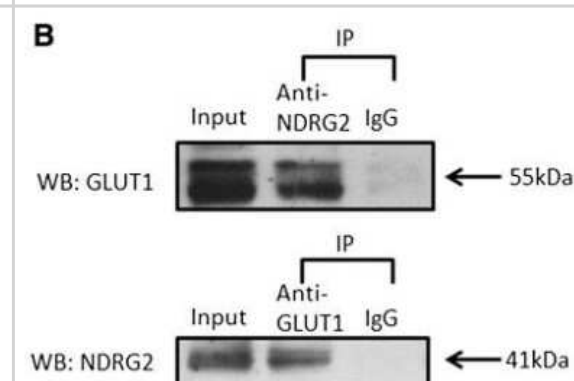
Western Blot: NDRG2 Antibody (6A5) [H00057447-M03] - NDRG2 inhibits cell proliferation and reduces the intracellular glucose levels of breast cancer cells. Con siRNA. SK-BR-3 cells were cultured to glucose medium at concentrations of 0, 5, 25, 50 and 100 mM for 24 hours, and then the protein or mRNA was extracted for analysis by immunoblotting (E). beta-actin was used as a loading control. The data presented are means  $\pm$  SD; error bars represented SD from 3 replicative wells. \* $P < 0.05$  and \*\* $P < 0.01$  versus control group. Image collected and cropped by CiteAb from the following publication (<https://breast-cancer-research.biomedcentral.com/articles/10.1186/bcr3628>) licensed under a CC-BY license.



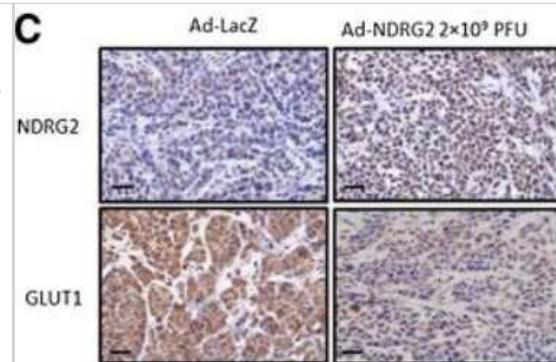
Western Blot: NDRG2 Antibody (6A5) [H00057447-M03] - NDRG2 inhibits cell proliferation and reduces the intracellular glucose levels of breast cancer cells. SK-BR-3 cells with low NDRG2 expression were infected by an adenovirus carrying NDRG2 (Ad-NDRG2) or negative control LacZ (Ad-LacZ), and T-47D cells with high NDRG2 were transfected with small interfering RNA targeting NDRG2 (NDRG2 siRNA) or negative control siRNA (Con siRNA). Thereafter proteins were extracted from these cells and analysed by immunoblotting. beta-actin was used as a loading control. Image collected and cropped by CiteAb from the following publication (<https://breast-cancer-research.biomedcentral.com/articles/10.1186/bcr3628>) licensed under a CC-BY license.



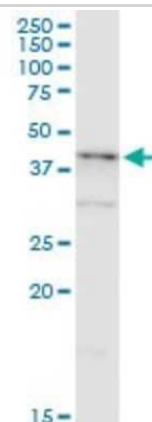
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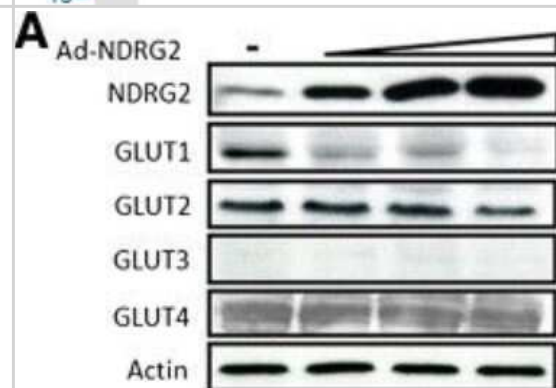
Immunocytochemistry/Immunofluorescence: NDRG2 Antibody (6A5) [H00057447-M03] - NDRG2 decreases the glucose uptake and GLUT1 protein levels in SK-BR-3-based subcutaneously xenograft tumours. The experiments illustrated are described in the Methods section. Intratumoural protein expression was assessed by N-myc downstream-regulated gene 2 (NDRG2) and glucose transporter 1 (GLUT1) IHC staining. Representative images are shown. Original magnification: 400 x; Scale bars = 50  $\mu$ m. Image collected and cropped by CiteAb from the following publication (<https://breast-cancer-research.biomedcentral.com/articles/10.1186/bcr3628>) licensed under a CC-BY license.



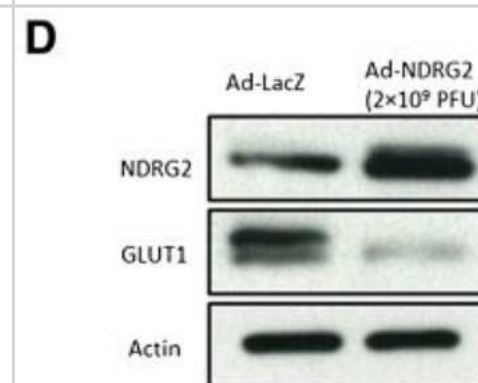
Western Blot: NDRG2 Antibody (6A5) [H00057447-M03] - Analysis of NDRG2 expression in Hela S3 NE.



Western Blot: NDRG2 Antibody (6A5) [H00057447-M03] - NDRG2 downregulates GLUT1 by promoting its ubiquitination. SK-BR-3 cells were infected with an adenovirus carrying N-myc downstream-regulated gene 2 (Ad-NDRG2) at 1, 5 and 10 multiplicity of infection (MOI) or Ad-LacZ for 48 hours. Next, cell proteins or mRNA were extracted and analysed by immunoblotting (A). beta-actin was used as a loading control. WB, Western blot. Image collected and cropped by CiteAb from the following publication (<https://breast-cancer-research.biomedcentral.com/articles/10.1186/bcr3628>) licensed under a CC-BY license.

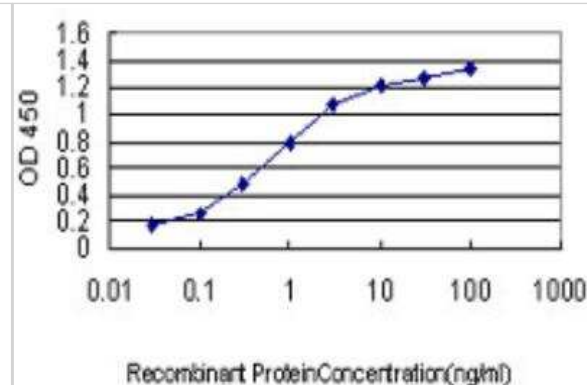


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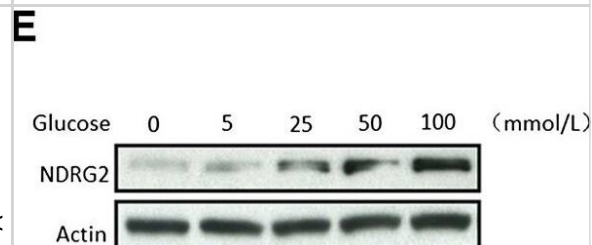




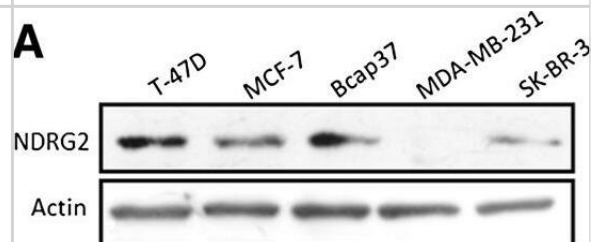
ELISA: NDRG2 Antibody (6A5) [H00057447-M03] - Detection limit for recombinant GST tagged NDRG2 is approximately 0.03ng/ml as a capture antibody.



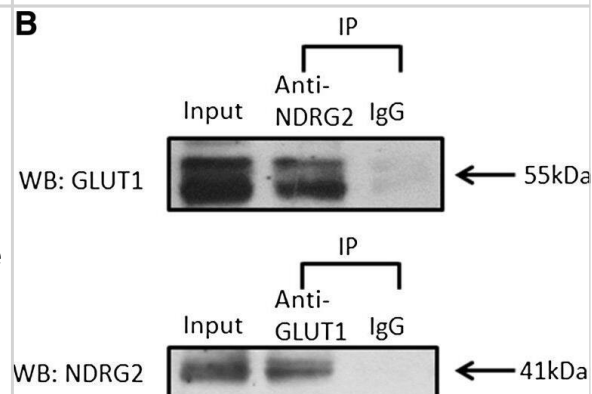
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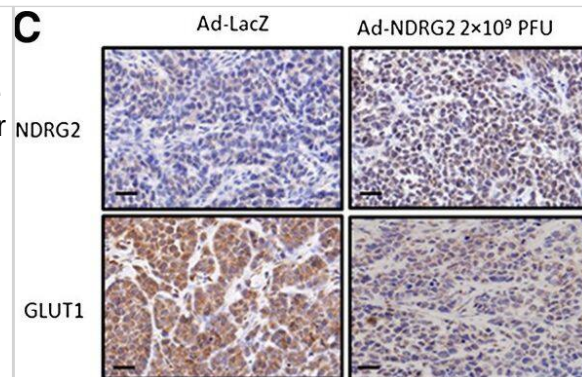
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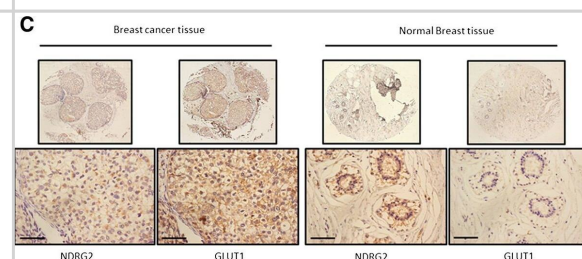
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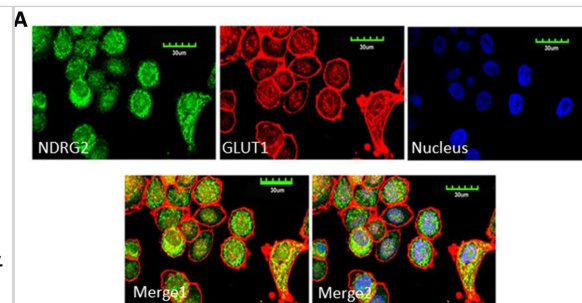
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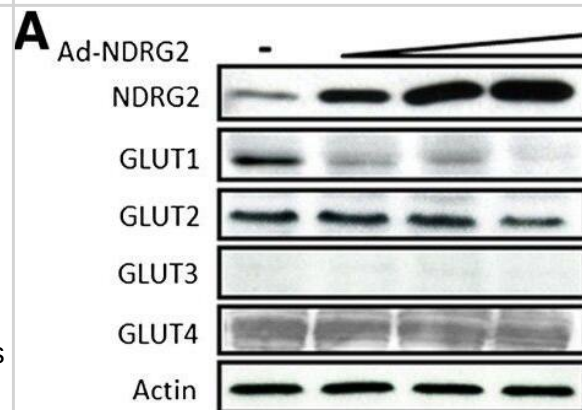
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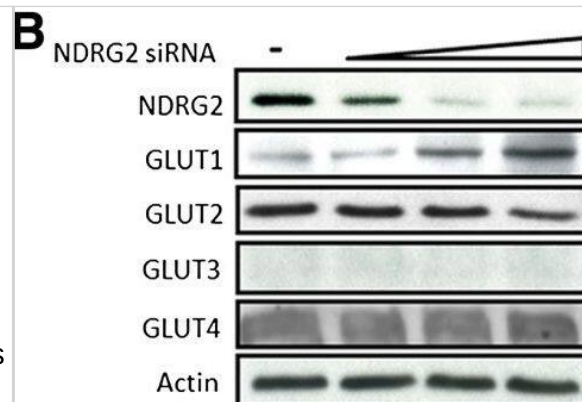


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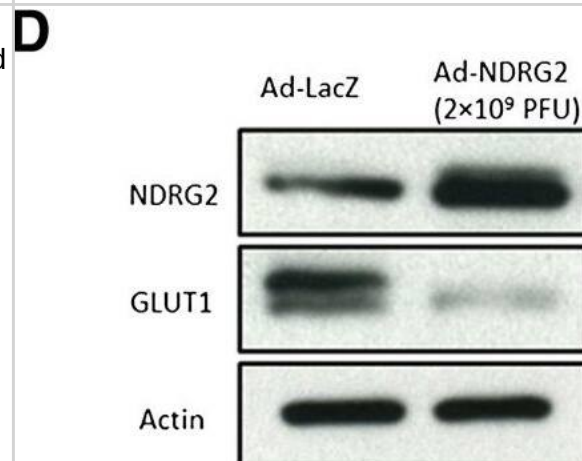




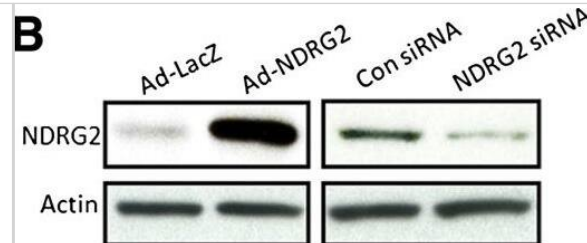
**Western Blot: NDRG2 Antibody (6A5) [H00057447-M03] - NDRG2** downregulates GLUT1 by promoting its ubiquitination. (A), (C) & (E) SK-BR-3 cells were infected with an adenovirus carrying N-myc downstream-regulated gene 2 (Ad-NDRG2) at 1, 5 & 10 multiplicity of infection (MOI) or Ad-LacZ for 48 hours. (B), (D) & (F) T-47D cells were transfected with NDRG2 small interfering RNA (siRNA) 10, 25 & 100 pmol or control siRNA for 48 hours. Next, cell proteins or mRNA were extracted & analysed by immunoblotting (A) & (B) or by real-time PCR (C) to (F).  $\beta$ -actin was used as a loading control. (C) – (F) The data presented are the means  $\pm$  SD of three independent experiments; error bars represent SD from 3 replicative wells. \* $P < 0.05$  & \*\* $P < 0.01$  versus control group. (G) SK-BR-3 cells were infected with 10 MOI Ad-NDRG2 or Ad-LacZ for 48 hours & then treated with 2  $\mu$ M, 6  $\mu$ M or 8  $\mu$ M MG-132 for 4 hours. Next, the protein was extracted & analysed by immunoblotting. (H) Cell fractions were prepared from the SK-BR-3 cells infected with 10 MOI Ad-NDRG2 or Ad-LacZ for 48 hours, & the membrane & cytosolic fractions of endogenous glucose transporter 1 (GLUT1) protein were detected. Tubulin &  $\beta$ -actin served as loading controls. (I) SK-BR-3 cells were transfected with hemagglutinin (HA)-ubiquitin plasmid for 6 hours & infected with Ad-NDRG2 or Ad-LacZ for another 48 hours. Subsequently, the cell lysates were collected & analysed by immunoprecipitation (IP) & immunoblotting with GLUT1 & HA antibodies. WB, Western blot. Image collected & cropped by CiteAb from the following publication (<http://breast-cancer-research.biomedcentral.com/articles/10.1186/bcr3628>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



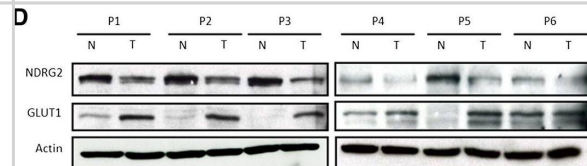
**Western Blot: NDRG2 Antibody (6A5) [H00057447-M03] - NDRG2** decreases the glucose uptake & GLUT1 protein levels in SK-BR-3-based subcutaneously xenograft tumours. The experiments illustrated are described in the Methods section. (A) Tumour growth was assessed every 3 days until day 21 treatment by measuring two perpendicular diameters & calculating the volume in cubic centimetres. Ad-LacZ, adenovirus expressing LacZ; Ad-NDRG2, adenovirus expressing NDRG2; PFU, Plaque-forming units. The data presented are means  $\pm$  SD; error bars represent SD from 6 mice. \* $P < 0.05$  & \*\* $P < 0.01$  versus phosphate-buffered saline (PBS) or Ad-LacZ. (B) Tumour cells were dissociated from xenograft tumours & suspended in PBS after the number of cells was counted. Next, the glucose uptake of cells in each group was detected. The data presented are means  $\pm$  SD of three independent experiments; error bars represent SD from 6 mice. \* $P < 0.05$  & \*\* $P < 0.01$  versus PBS or Ad-LacZ. (C) Intratumoural protein expression was assessed by N-myc downstream-regulated gene 2 (NDRG2) & glucose transporter 1 (GLUT1) IHC staining. Representative images are shown. Original magnification: 400 x; Scale bars = 50  $\mu$ m. (D) Proteins of the xenograft tumours from each group were extracted & analysed by immunoblotting to quantify NDRG2 & GLUT1 protein changes. Image collected & cropped by CiteAb from the following publication (<http://breast-cancer-research.biomedcentral.com/articles/10.1186/bcr3628>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: NDRG2 Antibody (6A5) [H00057447-M03] - NDRG2 inhibits cell proliferation & reduces intracellular glucose levels of breast cancer cells. (B) SK-BR-3 cells with low NDRG2 expression infected by an adenovirus carrying NDRG2 (Ad-NDRG2) or negative control LacZ (Ad-LacZ), & T-47D cells with high NDRG2 transfected with small interfering RNA targeting NDRG2 (NDRG2 siRNA) or negative control siRNA (Con siRNA). Thereafter proteins extracted from these cells & analysed by immunoblotting.  $\beta$ -actin used as a loading control. Before being cultured in 25 mM high-glucose (H.G.) or 5.5 mM low-glucose (L.G.) medium, SK-BR-3 cells infected by Ad-NDRG2 (C) & T-47D cells transfected by NDRG2 siRNA (D). Cell proliferation was detected by 3-(4,5-dimethylthiazol-2-yl)-2,5-diphenyltetrazolium bromide assay for 1 to 5 days. Image collected & cropped by CiteAb from the following publication (<http://breast-cancer-research.biomedcentral.com/articles/10.1186/bcr3628>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Western Blot: NDRG2 Antibody (6A5) [H00057447-M03] - NDRG2 is correlated with increased survival & negatively correlated with GLUT1 in breast carcinoma. Kaplan–Meier analysis was carried out according to N-myc downstream-regulated gene 2 (NDRG2) expression levels of disease-free survival (A) & overall survival (B). (C) Serial immunostained sections for NDRG2 & glucose transporter 1 (GLUT1) in breast cancer & normal tissues were analysed. Original magnification, 40 $\times$  (top) & 400 $\times$  (bottom); scale bars = 50  $\mu$ m. (D) Protein was extracted from matched breast tumour tissue (T) & adjacent normal tissue (N) & subjected to immunoblot analysis to examine NDRG2 & GLUT1 expression.  $\beta$ -actin served as a loading control. P: patient. Relative expression levels of NDRG2 (E) & GLUT1 (F) in human breast cancer & adjacent normal tissue are shown. immunoreactivity score distribution of cancer & adjacent normal tissue were represented with black & brown closed circles, respectively. The horizontal lines presented are means; error bars represented SD from 30 samples.  $P < 0.01$  was considered a statistically significant difference. Image collected & cropped by CiteAb from the following publication (<http://breast-cancer-research.biomedcentral.com/articles/10.1186/bcr3628>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



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