# Product Datasheet

## GPER/GPR30 Antibody - BSA Free
## NBP1-31239

Unit Size: 100 ul

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

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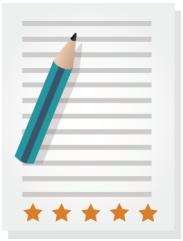
Updated 9/9/2025 v.20.1





# NBP1-31239

GPER/GPR30 Antibody - BSA Free

## Product Information

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|---|---|
| **Unit Size** | 100 ul |
| **Concentration** | Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services. |
| **Storage** | Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles. |
| **Clonality** | Polyclonal |
| **Preservative** | 0.01% Thimerosal |
| **Isotype** | IgG |
| **Purity** | Antigen Affinity-purified |
| **Buffer** | PBS, 20% Glycerol |
| **Target Molecular Weight** | 42 kDa |

## Product Description

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| **Description** | Novus Biologicals Rabbit GPER/GPR30 Antibody - BSA Free (NBP1-31239) is a polyclonal antibody validated for use in IHC, WB, Flow and ICC/IF. Anti-GPER/GPR30 Antibody: Cited in 9 publications. All Novus Biologicals antibodies are covered by our 100% guarantee. |
| **Host** | Rabbit |
| **Gene ID** | 2852 |
| **Gene Symbol** | GPER1 |
| **Species** | Human, Porcine |
| **Immunogen** | Carrier-protein conjugated synthetic peptide encompassing a sequence within the C-terminus region of human GPER/GPR30. The exact sequence is proprietary. |

## Product Application Details

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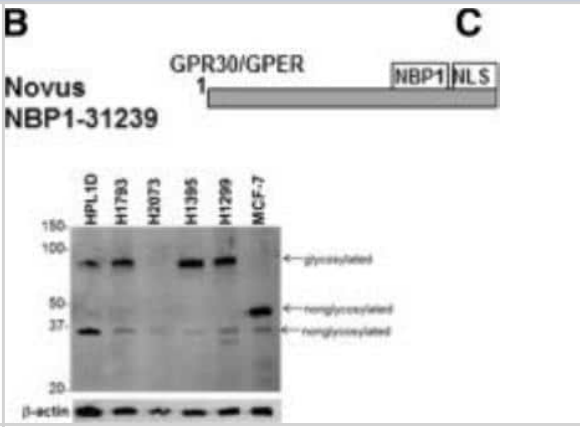
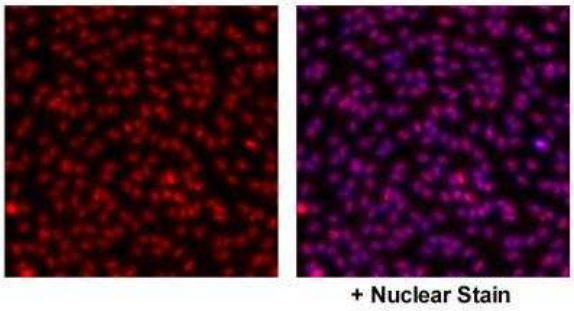
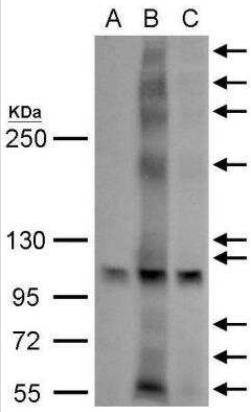
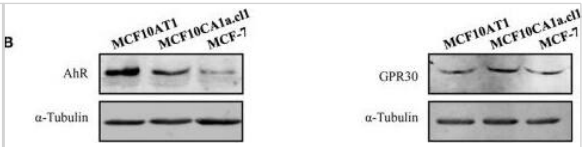
| **Applications** | Western Blot, Immunohistochemistry-Paraffin, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Knockdown Validated |
| **Recommended Dilutions** | Western Blot 1:500-1:3000, Flow Cytometry Reported in scientific literature (PMID 27899250), Immunohistochemistry, Immunocytochemistry/ Immunofluorescence Validated from a verified customer review, Immunohistochemistry-Paraffin Assay dependent, Knockdown Validated |
| **Application Notes** | WB As is commonly seen with membrane proteins, significant hydrophobicity can lead to aggregation following boiling of samples prior to SDS-PAGE and subsequent western blotting. We recommend to avoid boiling in this case. After harvesting lysate with RIPA buffer, sample loading buffer (including 2-ME) is directly added to the lysate. Samples are then mixed well and added directly without heating. |

## Images

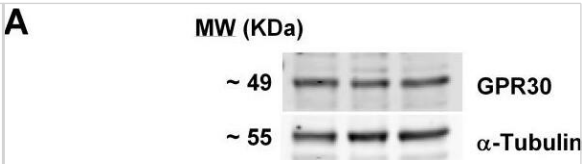
| | |
|---|---|
| Western Blot: GPER/GPR30 Antibody [NBP1-31239] - The MW of GPR30 is estimated to be 42 kDa, but higher MW sizes have been reported due to glycosylation and interaction with other proteins. Bands are identified as glycosylated and nonglycosylated based on reports cited in the text, but could include interaction with other proteins. For each GPER western, the membrane was stripped and reprobed for b-actin as a loading control. Quantitation of GPER was evaluated by summing all immunoreactive bands and dividing by b-actin, then normalizing to HBEC2-KT in each blot. Image collected and cropped by CiteAb from the following publication (biomedcentral.com/1471-2407/12/624), licensed under a CC-BY license. |  |
| Immunocytochemistry/Immunofluorescence: GPER/GPR30 Antibody [NBP1-31239] - Detection of GPER/GPR30 in HUVEC nucleus. Image courtesy of a product review by Dr. Subhadeep Chakrabarti of University of Alberta. |  |
| Western Blot: GPER/GPR30 Antibody [NBP1-31239] - A. 50 ug 293T whole cell lysate/extract. B. 50 ug whole cell lysate/extract of GFP-human GPR30-transfected 293T cells (No boiling). C. 50 ug whole cell lysate/extract of GFP-human GPR30 and GPR30 siRNA-transfected 293T cells (No boiling). 5 % SDS-PAGE GPR30 antibody ) dilution: 1:1000 |  |

Western Blot: GPER/GPR30 Antibody [NBP1-31239] - AhR & GPR30 receptors are present & functional in the MCF10AT1 cells. (A) RT-qPCR analysis of AhR & GPR30 mRNA expression levels represented in arbitrary units (a.u.) in the MCF10AT1 & MCF10CA1a.cl1 cells. MCF-7 cells were used as a control. Values represent mean ± SD of three independent experiments conducted in triplicate. (B) Representative Western blot analyses from three independent experiments of AhR & GPR30 protein expression in MCF10AT1 & MCF10CA1a.cl1 cells. MCF-7 cells were used as a control. (C) XRE-luciferase activity following 8 h exposure of MCF10AT1 cells to ITE at the indicated concentrations. TCDD 10−7 M was used as a control & results were expressed as % of TCDD 10−7 M activity. ***p < 0.001 in Student t-test. (D) XRE-luciferase activity upon 8 h of exposure to ITE 10−10 M alone or in combination with GNF351 at the indicated concentrations. TCDD 10−7 M was used as a control, & results were expressed as % of TCDD 10−7 M activity. Student t-tests revealed the statistically significant differences between unexposed & exposed cells: ***p < 0.001; & between ITE & ITE +GNF351: ###p < 0.001. Values in (C,D) represent mean ± SD of three independent experiments. (E) Representative Western blot analyses from three independent experiments of the phospho-MAPK/MAPK ratio upon exposure of MCF10AT1 cells to G1 (GPR30 agonist) for the times indicated, in the presence or absence of a 2 h pre-treatment with G15 (GPR30 antagonist). Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/32670863), licensed under a CC-BY license. Not internally tested by Novus Biologicals.




Western Blot: GPER/GPR30 Antibody [NBP1-31239] - Effects of short-term exposure of BPA, B[a]P, ITE & G1 10−10 M on AIG & MFE are inhibited by siRNA-AhR & siRNA-GPR30. Representative Western blot analysis from three independent experiments of AhR & GPR30 expression in transfected MCF10AT1 cells with (A) siRNA-AhR, (B) siRNA-GPR30 or their scrambled controls. Quantification of protein expression levels was normalized against tubulin expression. (C,D) Secondary mammospheres formation & (E,F) average number of colonies in soft agar, with the following treatments: BPA and/or B[a]P, G1, or ITE, 10−10 M. Cells were transfected with either siRNA-AhR, siRNA-GPR30 or their scrambled controls before being subjected to the treatments. Treatments were maintained throughout the course of experiments. (mean ± SD of 2 independent experiments, in triplicate). ***p < 0.001, *p < 0.05 vs. their respective unexposed; ###p < 0.001 siRNA vs. scrambled in Student t-test. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/32670863), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

Western Blot: GPER/GPR30 Antibody [NBP1-31239] - Human endothelial cells express GPR30 protein in the cell nucleus.(A) Confluent monolayers of HUVECs from 3 different cords were lysed & the protein lysates were immunoblotted for GPR30. α-tubulin was used as loading control. (B) HUVEC monolayers at 30–40% confluence were treated with 40 nM siRNA (control or GPR30_4) for 48 hours prior to lysis followed by immunoblotting of the cell lysates for GPR30. α-tubulin was used as loading control. Data shown are mean ± SEM of 4 independent experiments. ** & ## indicate p<0.01 compared to untreated & control siRNA-treated cells, respectively. (C) Confluent HUVECs grown on glass coverslips were fixed, permeabilized & immunostained with anti-GPR30 antibody. Nuclei were stained with Hoechst33342 dye. The merged image shows GPR30 (red) & nuclei (blue) in pseudocolor. Representative images from 3 independent experiments are shown. Bar, 20 µm. (D) Confluent HUVECs were lysed & fractionated into cytosolic (C) & nuclear (N) fractions prior to western blotting for eNOS, GPR30, p65, α-tubulin & c-Jun. A representative set of images (obtained from different membranes) from 3 independent experiments is shown. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/23285008), licensed under a CC-BY license. Not internally tested by Novus Biologicals.




Western Blot: GPER/GPR30 Antibody [NBP1-31239] - Effects of short-term exposure of BPA, B[a]P, ITE & G1 10−10 M on AIG & MFE are inhibited by siRNA-AhR & siRNA-GPR30. Representative Western blot analysis from three independent experiments of AhR & GPR30 expression in transfected MCF10AT1 cells with (A) siRNA-AhR, (B) siRNA-GPR30 or their scrambled controls. Quantification of protein expression levels was normalized against tubulin expression. (C,D) Secondary mammospheres formation & (E,F) average number of colonies in soft agar, with the following treatments: BPA and/or B[a]P, G1, or ITE, 10−10 M. Cells were transfected with either siRNA-AhR, siRNA-GPR30 or their scrambled controls before being subjected to the treatments. Treatments were maintained throughout the course of experiments. (mean ± SD of 2 independent experiments, in triplicate). ***p < 0.001, *p < 0.05 vs. their respective unexposed; ###p < 0.001 siRNA vs. scrambled in Student t-test. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/32670863), licensed under a CC-BY license. Not internally tested by Novus Biologicals.

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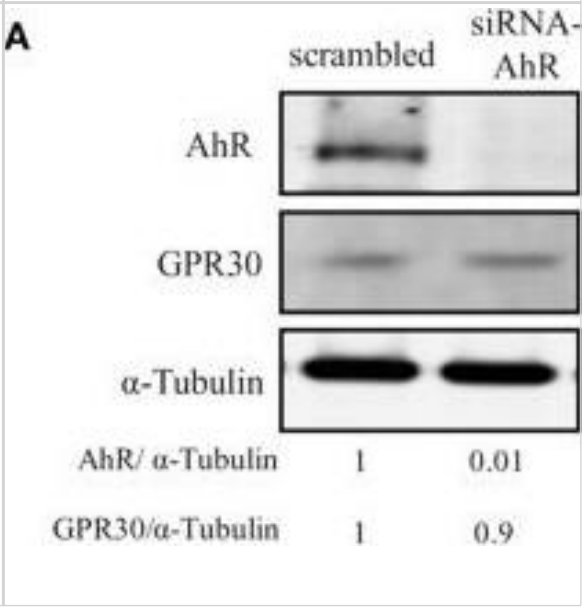
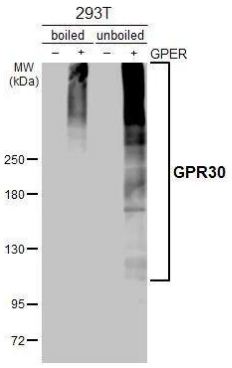


Non-transfected (-) and transfected (+) boiled and unboiled 293T whole cell extracts (30 ug) were separated by 5% SDS-PAGE, and the membrane was blotted with GPER/GPR30 antibody (NBP1-31239) diluted at 1:1000. The HRP-conjugated anti-rabbit IgG antibody was used to detect the primary antibody.




## Publications

Duliban M, Pawlicki P, Kami?ska A et al. Status of estrogen receptor expression and epigenetic methylation in Leydig cells after exposure to metalloestrogen - selenium Reproductive Toxicology 2023-05-01 [PMID: 37142062]

Torres-Lopez L, Olivas-Aguirre M, Villatoro-Gomez K, Dobrovinskaya O The G-Protein-Coupled Estrogen Receptor Agonist G-1 Inhibits Proliferation and Causes Apoptosis in Leukemia Cell Lines of T Lineage Frontiers in Cell and Developmental Biology 2022-02-14 [PMID: 35237599] (ICC/IF, Human)

Donini, C F, El Helou, M Et al. Long-Term Exposure of Early-Transformed Human Mammary Cells to Low Doses of Benzo[a]pyrene and/or Bisphenol A Enhances Their Cancerous Phenotype via an AhR/GPR30 Interplay. Front Oncol 2020-07-17 [PMID: 32670863] (FLOW, Human)

Details:
Citation using the Alexa Fluor 647 format of this antibody.

Torres-Lopez L, Maycotte P, Linan-Rico A et al. Tamoxifen induces toxicity, causes autophagy, and partially reverses dexamethasone resistance in Jurkat T cells J Leukoc Biol 2019-01-16 [PMID: 30645008] (WB, Human)

Zane M, Parello C, Pennelli G et al. Estrogen and thyroid cancer is a stem affair: A preliminary study Biomed. Pharmacother 2017-01-01 [PMID: 27899250] (FLOW, Human)

Teng Y, Radde BN, Litchfield LM et al. Dehydroepiandrosterone Activation of G-protein-Coupled Estrogen Receptor Rapidly Stimulates microRNA-21 Transcription in Human Hepatocellular Carcinoma Cells. J. Biol. Chem. 2015-05-11 [PMID: 25969534] (WB, Human)

Jala VR, Radde BN, Haribabu B, Klinge CM. Enhanced expression of G-protein coupled estrogen receptor (GPER/GPR30) in lung cancer. BMC Cancer 2012-12-28 [PMID: 23273253] (WB, Human)

Chakrabarti S, Davidge ST. G-Protein Coupled Receptor 30 (GPR30): A Novel Regulator of Endothelial Inflammation PLoS One 2012-01-01 [PMID: 23285008] (WB, Human)

Tian R, Wang Z, Shi Z et al. Differential expression of G-protein-coupled estrogen receptor-30 in human myometrial and uterine leiomyoma smooth muscle Fertil Steril 2012-10-06 [PMID: 23043685] (WB, IF/IHC, ICC/IF, Human)

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## Products Related to NBP1-31239

| | |
|---|---|
| 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 |

### 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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