Product Datasheet

GPER/GPR30 Antibody - BSA Free NLS4271

Unit Size: 0.05 ml

Keep as concentrated solution. Aliquot and store at -20C or below. Avoid multiple freeze-thaw cycles.





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NLS4271

GPER/GPR30 Antibody - BSA Free

Product Information	
Unit Size	0.05 ml
Concentration	1.0 mg/ml
Storage	Keep as concentrated solution. Aliquot and store at -20C or below. Avoid multiple freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.1% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS
Product Description	
Description	Product can be stored undiluted at 4C for up to 1 month.
Host	Rabbit
Gene ID	2852
Gene Symbol	GPER1
Species	Human, Mouse, Rat, Monkey
Reactivity Notes	Predicted cross-reactivity based on sequence identity: Gorilla (100%), Marmoset (100%), Bat (88%), Equine (88%), Rabbit (88%). Mouse reactivity reported in (PMID: 23273253). Rat reactivity reported from a verified customer review.
Specificity/Sensitivity	Human GPR30. BLAST analysis of the peptide immunogen showed no homology with other human proteins.
Immunogen	Synthetic 16 amino acid peptide from 3rd extracellular domain of human GPER/GPR30.
Product Application Details	
Applications	Western Blot, ELISA, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	Western Blot 1:1000, ELISA, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence, Immunoprecipitation, Immunohistochemistry-Paraffin 6.4 ug/ml
Application Notes	Antibody does not work in Western Blot for mouse samples. IP usage is reported in scientific literature (PMID: 19531209). ELISA usage is reported in scientific literature (PMID: 18489713). Use in ICC/IF reported in scientific literature (PMID: 21427217).

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Images IP-DAT Western Blot: GPER/GPR30 Antibody [NLS4271] - Direct association of Probe dopamine transporter and estrogen receptors on the plasma membrane DAT **EtOH** E2 Total vs. in total protein. Co-immunoprecipitation of dopamine transporter after 80kD 9 min 10-9 M E2 treatment and subsequent probing with antibodies for DAT, ERalpha, ERbeta, and GPR30. This is a representative ERa **EtOH** E2 Total immunoblot of 3 experiments Image collected and cropped by CiteAb 67kD from the following publication (https://www.biomedcentral.com/1471-2202/10/59), licensed under a CC-BY license. ERβ **EtOH** E₂ Total 55kD **FtOH** GPR30 F2 Total 44kD Immunohistochemistry-Paraffin: GPER/GPR30 Antibody [NLS4271] -Analysis of anti-GPR30 antibody with human brain, hippocampus. Western Blot: GPER/GPR30 Antibody [NLS4271] - Analysis of anti-GPR30 antibody with rat hypothalamus 5-10ug protein loaded per lane. Image courtesy provided by Carrie McAllister. **IP-DAT** Direct association of dopamine transporter and estrogen receptors on Probe the plasma membrane vs. in total protein. Co-immunoprecipitation of DAT **EtOH** E₂ Total dopamine transporter after 9 min 10-9 M E2 treatment and subsequent 80kD probing with antibodies for DAT, ERa, ERB, and GPR30. This is a representative immunoblot of 3 experiments FR a. **FtOH** Total F₂ 67kD ERβ **EtOH** Total E₂ 55kD **EtOH** Total GPR30 E₂ 44kD



Western Blot: GPER/GPR30 Antibody - BSA Free [NLS4271] -GPER/GPR30 expression in normal lung cell lines & lung adenocarcinoma cell lines. A) The expression of GPER was determined by realtime guantitative PCR in each of the normal lung cell lines (open bars), lung adenocarcinoma cell lines (grey bars), & MCF-7 human breast cancer cells (black bar). Values are the average of 4–6 biological replicates ± SEM. B-D) Representative western blot analysis of GPER/GPR30 expression in the indicted cell lines. 30 µg of whole cell extract (WCE) were separated on 10% SDS PAGE gels with MW marker migration indicated at the left of each blot. The diagrams at the top of B-C, & D indicate the region of GPER recognized by the 3 different polyclonal antibodies used: B) Novus NBP-1-31239, C) Novus NLS4271; D) Santa Cruz sc-4854-R. The MW of GPR30 is estimated to be 42 kDa, but higher MW sizes have been reported due to glycosylation & interaction with other proteins. Bands are identified as glycosylated & nonglycosylated based on reports cited in the text, but could include interaction with other proteins. For each GPER western, the membrane was stripped & reprobed for β -actin as a loading control. Quantitation of GPER was evaluated by summing all immunoreactive bands & dividing by β -actin, then normalizing to HBEC2-KT in each blot. Panel E is a summary of all westerns (not all westerns are shown) with each antibody. For Westerns with NBP1-31239 & sc-48524, values are the mean ± SEM from 3 separate blots using different WCE. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/23273253), licensed under a CC-BY license. Not internally tested by Novus Biologicals.





Publications

Ghaffari S, Naderi Nabi F et al. Estrogen Inhibits LDL (Low-Density Lipoprotein) Transcytosis by Human Coronary Artery Endothelial Cells via GPER (G-Protein-Coupled Estrogen Receptor) and SR-BI (Scavenger Receptor Class B Type 1). Arterioscler Thromb Vasc Biol 2018-01-10 [PMID: 30354216] (WB, Human)

Querido E, Sfeir A, Chartrand P ALKBH5 inhibited cell proliferation and sensitized bladder cancer cells to cisplatin by m6A-CK2 alpha mediated glycolysis STAR Protoc 2020-10-01 [PMID: 33111129] (IF/IHC, Human)

Ibrahim MMH, Bheemanapally K, Sylvester PW, Briski KP Sex differences in glucoprivic regulation of glycogen metabolism in hypothalamic primary astrocyte cultures: Role of estrogen receptor signaling Mol. Cell. Endocrinol. 2020-08-24 [PMID: 32853745] (WB, Rat)

Briski KP, Ali MH, Napit PR Sex-Specific Acclimation of A2 Noradrenergic Neuron Dopamine-Beta-Hydroxylase and Estrogen Receptor Variant Protein and 5'-AMP-Activated Protein Kinase Reactivity to Recurring Hypoglycemia in Rat J. Chem. Neuroanat. 2020-06-26 [PMID: 32599255] (WB, Rat)

Details:

Sprague-Dawley rats

Alshamrani AA, Bheemanapally K, Ibrahim MMH, Briski KP Impact of caudal hindbrain glycogen metabolism on A2 noradrenergic neuron AMPK activation and ventromedial hypothalamic nucleus norepinephrine activity and glucoregulatory neurotransmitter marker protein expression Neuropeptides 2020-05-16 [PMID: 32451071] (WB, Rat)

Ibrahim MMH, Bheemanapally K, Sylvester PW, Briski KP Sex-specific estrogen regulation of hypothalamic astrocyte estrogen receptor expression and glycogen metabolism in rats Mol. Cell. Endocrinol. 2020-01-11 [PMID: 31931041] (WB, Rat)

Uddin MM, Mahmood ASMH, Ibrahim MMH, Briski KP Sex-Dimorphic Estrogen Receptor Regulation of Ventromedial Hypothalamic Nucleus Glucoregulatory Neuron Adrenergic Receptor Expression in Hypoglycemic Male and Female Rats Brain Res. 2019-06-29 [PMID: 31265816] (WB, Rat)

Hasan Mahmood ASM, Mandal SK, Bheemanapally K et al. Norepinephrine control of ventromedial hypothalamic nucleus glucoregulatory neurotransmitter expression in the female rat: Role of monocarboxylate transporter function. Mol. Cell. Neurosci. 2019-01-17 [PMID: 30660767] (WB, Rat)

Tica AA, Tica OS, Georgescu CV et al. GPER and ERalpha expression in abnormal endometrial proliferations. Rom J Morphol Embryol. 2016-08-12 [PMID: 27516013] (IF/IHC, Human)

Alyea RA, Laurence SE, Kim SH et al. The roles of membrane estrogen receptor subtypes in modulating dopamine transporters in PC-12 cells. J Neurochem. 2008-08-01 [PMID: 18489713] (WB, ELISA, Rat)

Jeng YJ, Kochukov M, Watson CS Combinations of physiologic estrogens with xenoestrogens alter calcium and kinase responses, prolactin release, and membrane estrogen receptor trafficking in rat pituitary cells. Environ Health. 2010-10-15 [PMID: 20950447] (ELISA, Rat)

Alyea RA, Watson CS. Nongenomic mechanisms of physiological estrogen-mediated dopamine efflux. BMC Neurosci. 2009-06-16 [PMID: 19531209] (ELISA, IP, Rat)

More publications at http://www.novusbio.com/NLS4271





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NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]

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