Product Datasheet

GLP-1R Antibody - BSA Free
NBP1-97308

Unit Size: 0.1 ml

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

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Publications: 29

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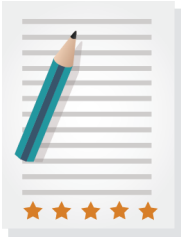
Updated 4/13/2025 v.20.1



NBP1-97308

GLP-1R Antibody - BSA Free

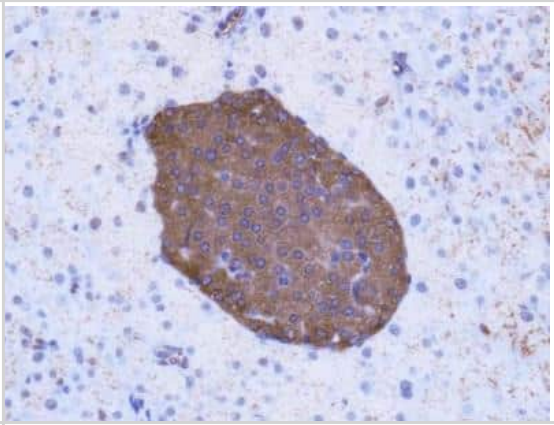
Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS

Product Description	
Host	Rabbit
Gene ID	2740
Gene Symbol	GLP1R
Species	Human, Mouse, Rat, Canine
Reactivity Notes	Rat reactivity reported in scientific literature (PMID: 27435156). Canine reactivity reported in scientific literature (PMID: 25747753).
Immunogen	A synthetic peptide made to an internal portion of the human GLP1R protein (between residues 250-350) [UniProt P43220]

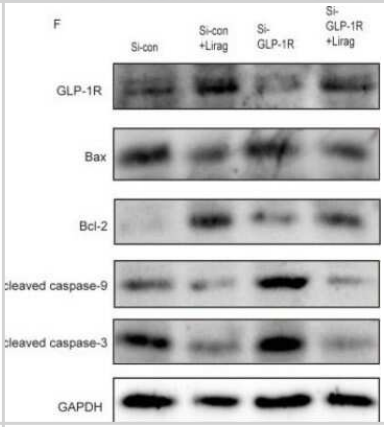
Product Application Details	
Applications	Western Blot, Simple Western, Dot Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Knockdown Validated
Recommended Dilutions	Western Blot 1:1000, Simple Western 1:100, Immunohistochemistry 1:200, Immunocytochemistry/ Immunofluorescence 1:100, Immunohistochemistry-Paraffin 1:200 - 1:400, Dot Blot reported in scientific literature (PMID 27435156), Knockdown Validated reported in scientific literature (PMID 31900217)
Application Notes	In WB, a band is seen ~53kDa representing GLP1R. In ICC/IF, membrane staining was observed in HeLa cells. In IHC-P, strong membrane staining was observed in mouse pancreas tissue. Prior to immunostaining paraffin tissues, antigen retrieval with sodium citrate buffer (pH 6.0) is recommended. In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. See Simple Western Antibody Database for Simple Western validation: Tested in Human Pancreas and Mouse Pancreas lysate 0.5 mg/mL, separated by Size, antibody dilution of 1:100. Separated by Size-Wes, Sally Sue/Peggy Sue.

Images

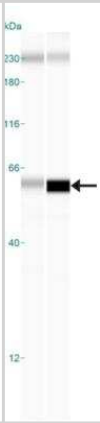
Immunohistochemistry: GLP-1R Antibody [NBP1-97308] - Analysis of GLP1R in mouse pancreas using DAB with hematoxylin counterstain.



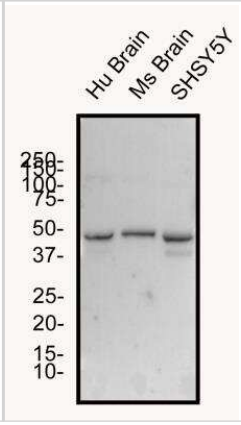
Western Blot: GLP-1R Antibody [NBP1-97308] - Liraglutide reduces apoptosis of hCMSCs via PKA/i2-catenin pathway. The expression of GLP-1R and apoptotic proteins Bax, Bcl-2, cleaved caspase-9, and cleaved caspase-3 were detected by western blot with Si-GLP-1R and liraglutide. Image collected and cropped by Citeab from the following publication (Mesenchymal stem cells combined with liraglutide relieve acute lung injury through apoptotic signaling restrained by PKA/-catenin. Stem Cell Res Ther (2020) licensed under a CC-BY license.



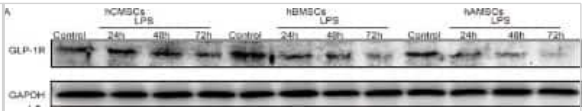
Simple Western: GLP-1R Antibody [NBP1-97308] - Simple Western lane view shows a specific band for GLP-1R in 0.5 mg/ml of Human Pancreas (left) and Mouse Pancreas (right) lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system. * Non-specific interaction with the 230 kDa Simple Western standard may be seen with this antibody



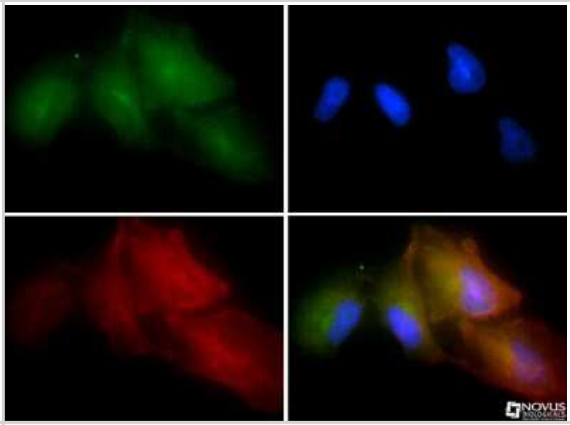
Western Blot: GLP-1R Antibody [NBP1-97308] - Total protein from Human and Mouse brain and SHSY-5Y cells was separated on a 12% gel by SDS-PAGE, transferred to PVDF membrane and blocked in 5% non-fat milk in TBST. The membrane was probed with 2.0 ug/ml anti-GLP1R in 1% non-fat milk in TBST and detected with an anti-rabbit HRP secondary antibody using chemiluminescence.



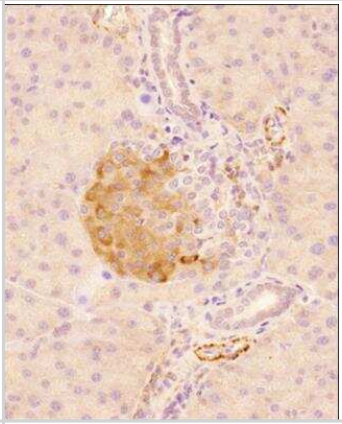
Western Blot: GLP-1R Antibody [NBP1-97308] - Expression of GLP-1R in three MSCs at different time points under the stimulation of LPS. The expression of GLP-1R in hCMSCs, hBMSCs, and hAMSCs in the control group and in 30 ug/mL LPS stimulation for 24 h, 48 h, and 72 h at protein. Fluorescence intensity of GLP-1R in hCMSCs Image collected and cropped by Citeab from the following publication (Mesenchymal stem cells combined with liraglutide relieve acute lung injury through apoptotic signaling restrained by PKA/-catenin. Stem Cell Res Ther (2020) licensed under a CC-BY license.



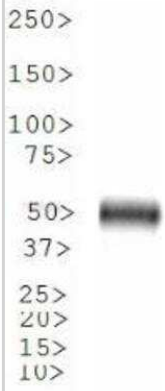
Immunocytochemistry/Immunofluorescence: GLP-1R Antibody [NBP1-97308] - GLP1R-1 antibody was tested in HeLa cells with FITC (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and Dylight 550 (red).

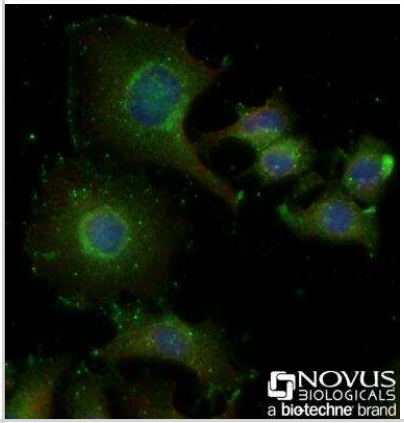
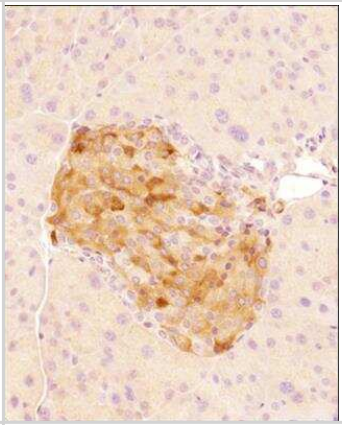
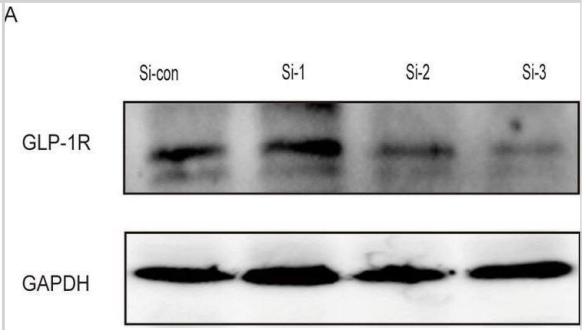


Immunohistochemistry-Paraffin: GLP-1R Antibody [NBP1-97308] - Tissue section of mouse pancreas using 1:200 dilution of rabbit anti-GLP1R antibody. The staining was developed with HRP labeled anti-rabbit IgG secondary antibody and DAB reagent, and nuclei of cells were counter-stained with hematoxylin. This GLP1R antibody primarily generated a specific membrane cytoplasmic staining of apparently beta cells in the Islets of Langerhans. The cells of lobular/inter-lobular ducts and the acinar cells were largely negative for GLP1R.



Western Blot: GLP-1R Antibody [NBP1-97308] - Analysis of GLP1R in human pancreas cell lysate.



Immunocytochemistry/Immunofluorescence: GLP-1R Antibody [NBP1-97308] - Neuro2a cells were fixed for 10 minutes using 10% formalin and then permeabilized for 5 minutes using 1X PBS + 0.05% Triton-X100. The cells were incubated with anti-GLP-1R at 5 ug/ml overnight at 4C and detected with an anti-rabbit Dylight 488 (Green) at a 1:500 dilution. Alpha tubulin (DM1A) NB100-690 was used as a co-stain at a 1:1000 dilution and detected with an anti-mouse Dylight 550 (Red) at a 1:500 dilution. Nuclei were counterstained with DAPI (Blue). Cells were imaged using a 40X objective.	
Immunohistochemistry-Paraffin: GLP-1R Antibody [NBP1-97308] - Tissue section of mouse pancreas using 1:200 dilution of rabbit anti-GLP1R antibody. The staining was developed with HRP labeled anti-rabbit IgG secondary antibody and DAB reagent, and nuclei of cells were counter-stained with hematoxylin. This GLP1R antibody primarily generated a specific membrane cytoplasmic staining of apparently beta cells in the Islets of Langerhans.	
Western Blot: GLP-1R Antibody - BSA Free [NBP1-97308] - Liraglutide reduces apoptosis of hCMSCs via PKA/β-catenin pathway. a Western blot & b RT-qPCR verify the knockdown effects of three Si-GLP-1R in hCMSCs. c, d Western blot was used to detect of β-catenin & p-β-catenin expression under the stimulation of LPS by adding 20 μM H89 or 100 nM Si-GLP-1R & liraglutide. e The expression of apoptotic proteins Bax, Bcl-2, cleaved caspase-9, & cleaved caspase-3 was detected by western blot with PKA inhibitor H89 & liraglutide. f The expression of GLP-1R & apoptotic proteins Bax, Bcl-2, cleaved caspase-9, & cleaved caspase-3 were detected by western blot with Si-GLP-1R & liraglutide. Error bars represent mean ± SD from three independent experiments. Compared with Si-con group, ***P < 0.001 Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/32429994), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Publications

Yan C, Ma X, Lam SM et al. Exendin-4 attenuates atherosclerosis progression via controlling hematopoietic stem/progenitor cell proliferation Journal of molecular cell biology 2023-03-02 [PMID: 36866528]

Amany E. Nofal, Hind S. AboShabaan, Walaa A. Fadda, Rafik E. Ereba, Sherin M. Elsharkawy, Heba M. Hathout, Jérôme Eeckhoute L-carnitine and Ginkgo biloba Supplementation In Vivo Ameliorates HCD-Induced Steatohepatitis and Dyslipidemia by Regulating Hepatic Metabolism Cells 2024-04-23 [PMID: 38727268]

Cantacorps L, Coull BM, Falck J et al. Gut-derived peptide hormone receptor expression in the developing mouse hypothalamus PLOS ONE 2023-08-17 [PMID: 37590249] (Western Blot)

Li R, She D, Ye Z et al. Glucagon-Like Peptide 1 Receptor Agonist Improves Renal Tubular Damage in Mice with Diabetic Kidney Disease Diabetes, Metabolic Syndrome and Obesity: Targets and Therapy 2022-04-29 [PMID: 35519661] (Immunocytochemistry/ Immunofluorescence)

You F, Li C, Zhang S et al. Sitagliptin inhibits the survival, stemness and autophagy of glioma cells, and enhances temozolomide cytotoxicity Biomedicine & pharmacotherapy = Biomedecine & pharmacotherapie 2023-03-24 [PMID: 36966667] (WB, Human)

Details:
Dilution used in WB 1:1000

Wang K, Cui X, Li F et al. Glucagon receptor blockage inhibits β-cell dedifferentiation through FoxO1 American journal of physiology. Endocrinology and metabolism 2022-11-16 [PMID: 36383639] (IHC-P, WB, Mouse)

Li R, Ye Z, She D et al. Semaglutide May Alleviate Hepatic Steatosis in T2DM Combined with NFALD Mice via miR-5120/ABHD6 Drug design, development and therapy 2022-10-12 [PMID: 36238196] (IHC-P, Mouse)

Meurot C, Martin C, Sudre L et al. Liraglutide, a glucagon-like peptide 1 receptor agonist, exerts analgesic, anti-inflammatory and anti-degradative actions in osteoarthritis Scientific reports 2022-01-28 [PMID: 35091584] (IF/IHC, Human)

Mieczkowska A, Bouvard B, Legrand E, Mabilleau G [Gly2]-GLP-2, But Not Glucagon or [D-Ala2]-GLP-1, Controls Collagen Crosslinking in Murine Osteoblast Cultures Frontiers in endocrinology 2021-08-04 [PMID: 34421828] (WB)

Li Y, Xu B, Yang J Et al. Liraglutide protects against lethal renal ischemia-reperfusion injury by inhibiting high-mobility group box 1 nuclear-cytoplasmic translocation and release Pharmacological Research 2021-09-01 [PMID: 34481074] (IF/IHC, WB, Mouse)

Sho H, Fukui K, Yoneda S et al. Insulinoma induces a hyperinsulinemia-mediated decrease of GLUT2 and GLP1 receptor in normal pancreatic beta-cells Biochem Biophys Res Commun 2020-11-13 [PMID: 33199025] (WB, Mouse)

Details:
Western blot analysis performed on Min6 cells cultured in insulin

Nomiyama T, Kawanami T et al. Exendin-4, a GLP-1 receptor agonist, attenuates prostate cancer growth. Diabetes 2014-01-11 [PMID: 24879833] (IF/IHC, Human)

More publications at http://www.novusbio.com/NBP1-97308

Procedures

Western Blot Protocol for GLP-1R Antibody (NBP1-97308)
Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 10-25 ug of total protein per lane.
2. Transfer proteins to PVDF membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain the membrane with Ponceau S (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot TBS -0.05% Tween 20 (TBST).
5. Block the membrane in 5% Non-fat milk in TBST (blocking buffer) for at least 1 hour.
6. Wash the membrane in TBST three times for 10 minutes each.
7. Dilute primary antibody in blocking buffer and incubate overnight at 4C with gentle rocking.
8. Wash the membrane in TBST three times for 10 minutes each.
9. Incubate the membrane in diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturer's instructions) for 1 hour at room temperature.
10. Wash the blot in TBST three times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturer's instructions.

Immunohistochemistry-Paraffin Protocol for GLP-1R Antibody (NBP1-97308)
Immunohistochemistry-Paraffin Embedded Sections

Antigen Unmasking:
Bring slides to a boil in 10 mM sodium citrate buffer (pH 6.0) then maintain at a sub-boiling temperature for 10 minutes. Cool slides on bench-top for 30 minutes (keep slides in the sodium citrate buffer at all times).

Staining:
1. Wash sections in deionized water three times for 5 minutes each.
2. Wash sections in PBS for 5 minutes.
3. Block each section with 100-400 ul blocking solution (1% BSA in PBS) for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul diluted primary antibody. Incubate overnight at 4 C.
5. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
6. Add 100-400 ul HRP polymer conjugated secondary antibody. Incubate 30 minutes at room temperature.
7. Wash sections three times in wash buffer for 5 minutes each.
8. Add 100-400 ul DAB substrate to each section and monitor staining closely.
9. As soon as the sections develop, immerse slides in deionized water.
10. Counterstain sections in hematoxylin.
11. Wash sections in deionized water two times for 5 minutes each.
12. Dehydrate sections.
13. Mount coverslips.

Immunocytochemistry/ Immunofluorescence Protocol for GLP-1R Antibody (NBP1-97308)
Immunocytochemistry Protocol

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.

1. Remove culture medium and wash the cells briefly in PBS. Add 10% formalin to the dish and fix at room temperature for 10 minutes.
2. Remove the formalin and wash the cells in PBS.
3. Permeablize the cells with 0.1% Triton X100 or other suitable detergent for 10 min.
4. Remove the permeablization buffer and wash three times for 10 minutes each in PBS. Be sure to not let the specimen dry out.
5. To block nonspecific antibody binding, incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
6. Add primary antibody at appropriate dilution and incubate overnight at 4C.
7. Remove primary antibody and replace with PBS. Wash three times for 10 minutes each.
8. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
9. Remove secondary antibody and replace with PBS. Wash three times for 10 minutes each.
10. Counter stain DNA with DAPi if required.

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Products Related to NBP1-97308

NBP1-97308PEP	GLP-1R Antibody Blocking Peptide
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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