Product Datasheet

Glycogen phosphorylase, muscle form Antibody NBP2-16689

Unit Size: 0.1 ml

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

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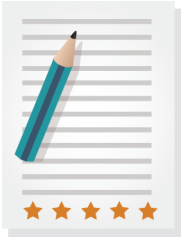
Updated 10/23/2024 v.20.1



NBP2-16689

Glycogen phosphorylase, muscle form Antibody

Product Information

Unit Size	0.1 ml
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	Polyclonal
Preservative	0.025% Proclin 300
Isotype	IgG
Purity	Antigen Affinity-purified
Buffer	PBS (pH 7), 20% Glycerol
Target Molecular Weight	97 kDa

Product Description

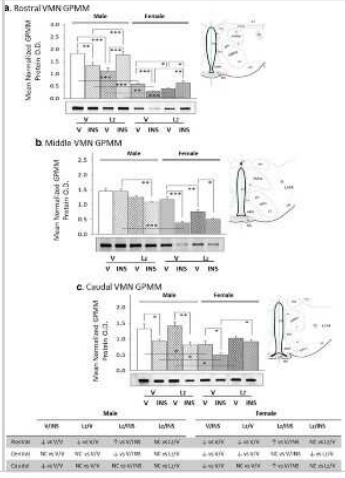
Host	Rabbit
Gene ID	5837
Gene Symbol	PYGM
Species	Human, Mouse, Zebrafish
Reactivity Notes	Xenopus laevis (84%). Rat reactivity reported in scientific literature (PMID: 30660767).
Immunogen	Recombinant protein encompassing a sequence within the center region of human Glycogen phosphorylase, muscle form. The exact sequence is proprietary.

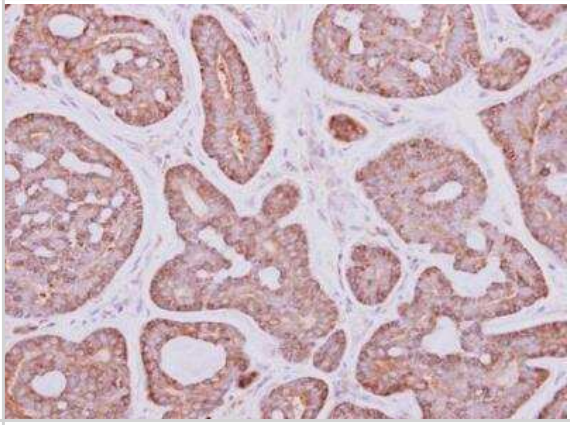
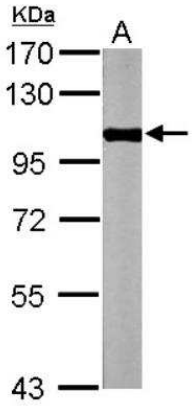
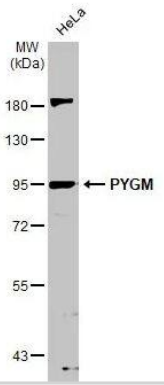
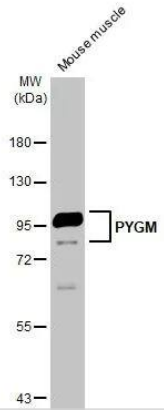
Product Application Details

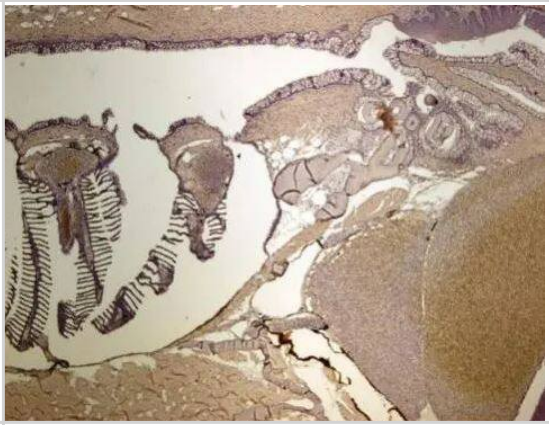
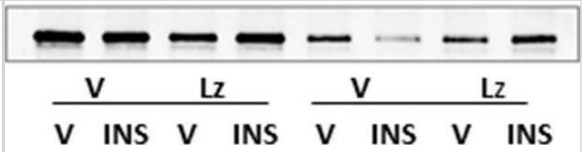
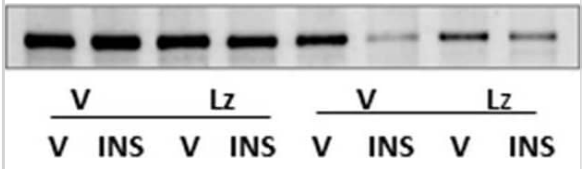
Applications	Western Blot, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1:500-1:3000, Immunohistochemistry 1:100-1:1000, Immunohistochemistry-Paraffin 1:100-1:1000

Images

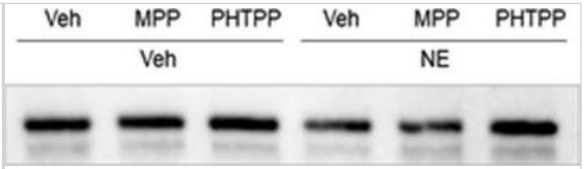
Western Blot: Glycogen phosphorylase, muscle form Antibody [NBP2-16689] - Region-based patterns of glycogen phosphorylase, muscle form (GPmm) Protein expression inicvLz-pretreated male and female rats. GPmm protein was measured by Western blot in the rostral (a; F (7,40)=35.87; p<0.0001), middle (b; F(7,40)=33.89; p<0.0001), and caudal (c; F(7,40)=9.43; p<0.0001) VMN of V/V, V/INS, Lz/V, and Lz/INS groups of male (M; left-hand side) and female (F; right-hand side) rats. *p<0.05; **p<0.01; ***p<0.001; ****p<0.0001. For each VMN segment, data depict mean normalized GAD O.D. valuesS.E.M. Results are summarized in the table at bottom. VMN = Ventromedial hypothalamic nucleus; V = Vehicle; LZ = letrozole; INS = insulin. Image collected and cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/33238883/) licensed under a CC-BY license.



Immunohistochemistry-Paraffin: Glycogen phosphorylase, muscle form Antibody [NBP2-16689] - Human breast cancer. PYGM antibody [C1C3] dilution: 1:500. Antigen Retrieval: Trilogy™ (EDTA based, pH 8.0) buffer, 15min.	
Western Blot: Glycogen phosphorylase, muscle form Antibody [NBP2-16689] - Sample (50 ug of whole cell lysate) A: Mouse brain 7.5% SDS PAGE diluted at 1:1000	
Western Blot: Glycogen phosphorylase, muscle form Antibody [NBP2-16689] -Whole cell extract (30 ug) was separated by 7.5% SDS-PAGE, and the membrane was blotted with PYGM antibody [C1C3] diluted at 1:1000. The HRP-conjugated anti-rabbit IgG antibody (NBP2-19301) was used to detect the primary antibody.	
Western Blot: Glycogen phosphorylase, muscle form Antibody [NBP2-16689] -Mouse tissue extract (50 ug) was separated by 7.5% SDS-PAGE, and the membrane was blotted with PYGM antibody [C1C3] diluted at 1:10000. The HRP-conjugated anti-rabbit IgG antibody (GTX213110-01) was used to detect the primary antibody.	

Immunohistochemistry-Paraffin: Glycogen phosphorylase, muscle form Antibody [NBP2-16689] - Mouse muscle. PYGM stained by PYGM antibody [C1C3] diluted at 1:500. Antigen Retrieval: Citrate buffer, pH 6.0, 15 min.	
Immunohistochemistry-Paraffin: Glycogen phosphorylase, muscle form Antibody [NBP2-16689] -Analysis of paraffin-embedded zebrafish tissue, using PYGM antibody [C1C3] at 1:300 dilution.	
Western Blot: Glycogen phosphorylase, muscle form Antibody [NBP2-16689] - Region-based patterns of glycogen phosphorylase-muscle type (GPmm) Protein expression in icv Lz-pretreated male & female rats. GPmm protein was measured by Western blot in the rostral (a; $F(7,40) = 35.87$; $p < 0.0001$), middle (b; $F(7,40) = 33.89$; $p < 0.0001$), & caudal (c; $F(7,40) = 9.43$; $p < 0.0001$) VMN of V/V, V/INS, Lz/V, & Lz/INS groups of male (M; left-hand side) & female (F; right-hand side) rats. *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$; ****$p < 0.0001$. For each VMN segment, data depict mean normalized GAD O.D. values ± S.E.M. Results are summarized in the table at bottom; ↑ & ↓ denote a relative increase or decrease, respectively, between treatment groups; no change (NC) between groups is also indicated Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/33238883), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Western Blot: Glycogen phosphorylase, muscle form Antibody [NBP2-16689] - Region-based patterns of glycogen phosphorylase-muscle type (GPmm) Protein expression in icv Lz-pretreated male & female rats. GPmm protein was measured by Western blot in the rostral (a; $F(7,40) = 35.87$; $p < 0.0001$), middle (b; $F(7,40) = 33.89$; $p < 0.0001$), & caudal (c; $F(7,40) = 9.43$; $p < 0.0001$) VMN of V/V, V/INS, Lz/V, & Lz/INS groups of male (M; left-hand side) & female (F; right-hand side) rats. *$p < 0.05$; **$p < 0.01$; ***$p < 0.001$; ****$p < 0.0001$. For each VMN segment, data depict mean normalized GAD O.D. values ± S.E.M. Results are summarized in the table at bottom; ↑ & ↓ denote a relative increase or decrease, respectively, between treatment groups; no change (NC) between groups is also indicated Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/33238883), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Western Blot: Glycogen phosphorylase, muscle form Antibody [NBP2-16689] - ERα & ERβ Involvement in Noradrenergic Regulation of VMN GS & GPbb/GPmm Protein Expression. Micropunch-dissected VMN tissue obtained from groups of female rats (n = 6/group) infused into the VMN with Veh or NE after Veh, MPP, or PHTPP pretreatment was analyzed by Western blot for GS (Panel 5A), $F(5, 12) = 8.44$, $p = .0003$; GPbb (Panel 5B), $F(5, 12) = 12.90$, $p < .0001$; or GPmm (Panel 5C), $F(5, 12) = 16.49$, $p < .0001$ protein content. Data show mean normalized protein optical density (O.D.) values ± SEM. *$p < .05$; **$p < .01$; ***$p < .001$. VMN = ventromedial hypothalamic nucleus; GS = glycogen synthase; GPmm = glycogen phosphorylase-muscle type; GPbb = glycogen phosphorylase-brain type; MPP = 1,3-Bis(4-hydroxyphenyl)-4-methyl-5-[4-(2-piperidinylethoxy)phenol]-1H-pyrazole dihydrochloride; PHTPP = 4-[2-phenyl-5,7-bis(trifluoromethyl)pyrazolo[1,5-a]pyrimidin-3-yl]phenol; NE = norepinephrine. Image collected & cropped by CiteAb from the following publication (https://pubmed.ncbi.nlm.nih.gov/32233668), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Uddin MM, Ibrahim MMH, Briski KP Sex-dimorphic neuroestradiol regulation of ventromedial hypothalamic nucleus glucoregulatory transmitter and glycogen metabolism enzyme protein expression in the rat BMC Neurosci 2020-11-25 [PMID: 33238883]

Ibrahim MMH, Bheemanapally K, Sylvester PW, Briski KP. Norepinephrine Regulation of Adrenergic Receptor Expression, 5' AMP-Activated Protein Kinase Activity, and Glycogen Metabolism and Mass in Male Versus Female Hypothalamic Primary Astrocyte Cultures ASN Neuro 2020-11-12 [PMID: 33176438]

Alhamyani A, Mahmood ASMH, Alshamrani A et al. Central Type II Glucocorticoid Receptor Regulation of Ventromedial Hypothalamic Nucleus Glycogen Metabolic Enzyme and Glucoregulatory Neurotransmitter Marker Protein Expression in the Male Rat J Endocrinol Diabetes 2021-01-13 [PMID: 34258390] (Western Blot)

Bheemanapally K, Alhamyani A, Alshamrani AA et al. Hypoglycemic and post?hypoglycemic patterns of glycogen phosphorylase isoform expression in the ventrolateral ventromedial hypothalamic nucleus: impact of sex and estradiol Acta Neurobiologiae Experimentalis 2021-01-01 [PMID: 34170267] (Western Blot)

Briski KP, Napit PR, Alhamyani A et al. Sex-Dimorphic Octadecaneuropeptide (ODN) Regulation of Ventromedial Hypothalamic Nucleus Glucoregulatory Neuron Function and Counterregulatory Hormone Secretion ASN neuro 2023 -05-17 [PMID: 37194319] (WB, Rat)

Briski KP, Mahmood ASMH, Uddin MM et al. Effects of Ventromedial Hypothalamic Nucleus (VMN) Aromatase Gene Knockdown on VMN Glycogen Metabolism and Glucoregulatory Neurotransmission Biology 2023-02-03 [PMID: 36829519] (Western Blot, Rat)

Pasula MB, Napit PR, Alhamyani A et al. Sex Dimorphic Glucose Transporter-2 Regulation of Hypothalamic Astrocyte Glucose and Energy Sensor Expression and Glycogen Metabolism Neurochemical research 2022-09-29 [PMID: 36173588]

Briski K, Napit P, Haider Ali M et al. Hindbrain Catecholamine Regulation of Ventromedial Hypothalamic Nucleus Glycogen Metabolism during Acute Versus Recurring Insulin-Induced Hypoglycemia in Male versus Female Rat Endocr Metab Sci 2021-05-17 [PMID: 33997825]

Briski, K P & Mandal, S K. Hindbrain metabolic deficiency regulates ventromedial hypothalamic nucleus glycogen metabolism and glucose regulatory signaling. Acta Neurobiol Exp (Wars) 2020-03-28 [PMID: 32214275] (IF/IHC, Green monkey)

Mahmood A S M H, Napit P R et al. Estrogen Receptor Involvement in Noradrenergic Regulation of Ventromedial Hypothalamic Nucleus Glucoregulatory Neurotransmitter and Stimulus-Specific Glycogen Phosphorylase Enzyme Isoform Expression. ASN Neuro 2020-03-04 [PMID: 32233668] (WB, Rat)

Bheemanapally K, Ibrahim MMH, Briski KP Combinatory high-resolution microdissection/ultra performance liquid chromatographic-mass spectrometry approach for small tissue volume analysis of rat brain glycogen J Pharm Biomed Anal 2019-09-30 [PMID: 31606560] (WB, Rat)

Briski K, Mandal S Hindbrain lactoprivic regulation of hypothalamic neuron transactivation and gluco-regulatory neurotransmitter expression: Impact of antecedent insulin-induced hypoglycemia Neuropeptides 2019-08-01 [PMID: 31488323] (WB, Rat)

More publications at http://www.novusbio.com/NBP2-16689

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NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
H00005837-Q01-10ug	Recombinant Human Glycogen phosphorylase, muscle form GST (N-Term) Protein

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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