# **Product Datasheet**

# Glutaminase Antibody - BSA Free NBP1-89766

Unit Size: 0.1 ml

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

www.novusbio.com



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**Publications: 5** 

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#### NBP1-89766

Glutaminase Antibody - BSA Free

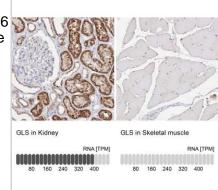
Product Information	
Unit Size	0.1 ml
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS (pH 7.2) and 40% Glycerol
Product Description	

Product Description	
Host	Rabbit
Gene ID	2744
Gene Symbol	GLS
Species	Human, Mouse, Rat
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID: 25798620). Rat reactivity reported in scientific literature (PMID: 31265816).
Immunogen	This antibody was developed against Recombinant Protein corresponding to amino acids: DRWNNTPMDEALHFGHHDVFKILQEYQVQYTPQGDSDNGKENQTVHKNLDGL

Product Application Details	
Applications	Western Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 0.04-0.4 ug/ml, Immunohistochemistry 1:50 - 1:200, Immunocytochemistry/ Immunofluorescence 0.25-2 ug/ml, Immunohistochemistry-Paraffin 1:50 - 1:200
Application Notes	For IHC-Paraffin, HIER pH 6 retrieval is recommended. ICC/IF Fixation Permeabilization: Use PFA/Triton X-100.

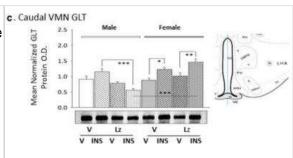
# **Images**

Immunohistochemistry-Paraffin: Glutaminase Antibody [NBP1-89766] - Staining in human kidney and skeletal muscle tissues using NBP1-89766 antibody. Corresponding GLS RNA-seq data are presented for the same tissues.

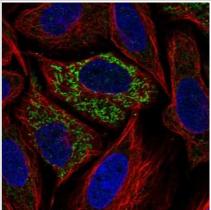




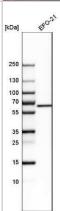
Western Blot: Glutaminase Antibody [NBP1-89766] - Region-based expression of the pyruvate recycling pathway marker protein glutaminase (GLT) the VMN of icv Lz-pretreated male and female rats. GLT protein was measured by Western blot in the caudal (c; F(7,40) = 11.67; p < 0.0001) VMN of V/V, V/INS, Lz/V, 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. values +/- S.E.M. VMN = Ventromedial hypothalamic nucleus; V = Vehicle; L = letrozole; INS = insulin. Image collected and cropped by CiteAb from the following publication (//pubmed.ncbi.nlm.nih.gov/33238883/) licensed under a CC-BY license.



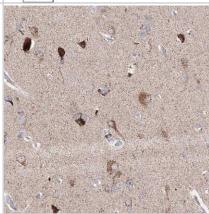
Immunocytochemistry/Immunofluorescence: Glutaminase Antibody [NBP1-89766] - Staining of human cell line SiHa shows localization to mitochondria. Antibody staining is shown in green.



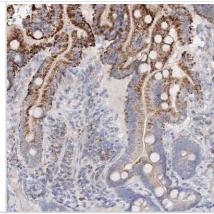
Western Blot: Glutaminase Antibody [NBP1-89766] - Analysis in human cell line EFO-21.



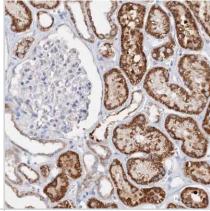
Immunohistochemistry-Paraffin: Glutaminase Antibody [NBP1-89766] - Staining of human cerebral cortex shows moderate to strong granular cytoplasmic positivity in neurons.



Immunohistochemistry-Paraffin: Glutaminase Antibody [NBP1-89766] - Staining of human duodenum shows moderate granular cytoplasmic positivity in glandular cells.



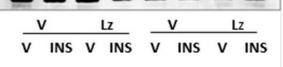
Immunohistochemistry-Paraffin: Glutaminase Antibody [NBP1-89766] - Staining of human kidney shows strong granular cytoplasmic positivity in cells in tubules.



Immunohistochemistry-Paraffin: Glutaminase Antibody [NBP1-89766] - Staining of human skeletal muscle shows no positivity in myocytes as expected.



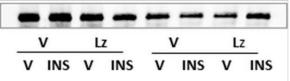
Western Blot: Glutaminase Antibody [NBP1-89766] - Region-based patterns of glycogen phosphorylase-muscle type (GPmm) Protein expression in icv Lz-pretreated male & female rats. GPmm protein was measured by Western blot in the rostral (a; F(7,40) = 35.87; p < 0.0001), middle (b; F(7,40) = 33.89; p < 0.0001), & 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  $\pm$  S.E.M. Results are summarized in the table at bottom;  $\uparrow$  &  $\downarrow$  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.



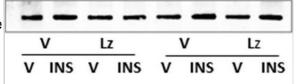
Western Blot: Glutaminase Antibody [NBP1-89766] - Region-based expression of the pyruvate recycling pathway marker protein glutaminase (GLT) the VMN of icv Lz-pretreated male & female rats. GLT protein was measured by Western blot in the rostral (a; F(7,40) = 12.20; p < 0.0001), middle (b; F(7,40) = 17.39; p < 0.0001), & caudal (c; F(7,40) = 11.67; 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  $\pm$  S.E.M. Results are summarized in the table at bottom;  $\uparrow$  &  $\downarrow$  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: Glutaminase Antibody [NBP1-89766] - Region-based expression of the pyruvate recycling pathway marker protein glutaminase (GLT) the VMN of icv Lz-pretreated male & female rats. GLT protein was measured by Western blot in the rostral (a; F(7,40) = 12.20; p < 0.0001), middle (b; F(7,40) = 17.39; p < 0.0001), & caudal (c; F(7,40) = 11.67; 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  $\pm$  S.E.M. Results are summarized in the table at bottom;  $\uparrow$  &  $\downarrow$  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: Glutaminase Antibody [NBP1-89766] - Region-based expression of the pyruvate recycling pathway marker protein glutaminase (GLT) the VMN of icv Lz-pretreated male & female rats. GLT protein was measured by Western blot in the rostral (a; F(7,40) = 12.20; p < 0.0001), middle (b; F(7,40) = 17.39; p < 0.0001), & caudal (c; F(7,40) = 11.67; 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  $\pm$  S.E.M. Results are summarized in the table at bottom;  $\uparrow$  &  $\downarrow$  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.



#### **Publications**

Emmanuel Benichou, Bolaji Seffou, Selin Topçu, Ophélie Renoult, Véronique Lenoir, Julien Planchais, Caroline Bonner, Catherine Postic, Carina Prip-Buus, Claire Pecqueur, Sandra Guilmeau, Marie-Clotilde Alves-Guerra, Renaud Dentin The transcription factor ChREBP Orchestrates liver carcinogenesis by coordinating the PI3K/AKT signaling and cancer metabolism Nature Communications 2024-02-29 [PMID: 38424041]

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]

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)

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)

Tanaka K, Sasayama T, Irino Y et al. Compensatory glutamine metabolism promotes glioblastoma resistance to mTOR inhibitor treatment. J Clin Invest 2015-04-01 [PMID: 25798620] (IF/IHC, Mouse)





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## **Products Related to NBP1-89766**

NBP1-89766PEP Glutaminase Recombinant Protein Antigen

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

NBP2-24891 Rabbit IgG Isotype Control

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