

Product Datasheet

Glutamate Dehydrogenase Antibody - BSA Free NB600-853

Unit Size: 0.2 ml

Store at -20C. Avoid freeze-thaw cycles.

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Updated 2/21/2025 v.20.1

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NB600-853**Glutamate Dehydrogenase Antibody - BSA Free**

Product Information	
Unit Size	0.2 ml
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.01% Sodium Azide
Isotype	Serum
Purity	Delipidation and Defibrination
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Product Description	
Description	<p>This product was prepared from monospecific antiserum by a delipidation and defibrination. Assay by immunoelectrophoresis resulted in a single precipitin arc against anti-rabbit serum, purified and partially purified Glutamate Dehydrogenase [Bovine Liver]</p> <p>Store vial at 4C prior to restoration. For extended storage aliquot contents and freeze at -20C or below. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4C as an undiluted liquid. Dilute only prior to immediate use.</p>
Host	Rabbit
Gene ID	2746
Gene Symbol	GLUD1
Species	Human, Bovine
Reactivity Notes	BLAST analysis was used to determine that cross reactivity is suggested for both mitochondrial and brain isoforms (GDH1 and GDH2), from both bovine and human sources. Additionally similar reactivity is suggested for most primate species including green monkey, white gibbon, chimpanzee orangutan, and gorilla. A high degree of sequence homology is also noted for Glutamate Dehydrogenase from chicken, mouse, rat, dog, and other mammals as well as <i>Xenopus tropicalis</i> , zebrafish, rainbow trout and Atlantic salmon. Human reactivity reported in scientific literature (PMID: 27623078).
Marker	Mitochondria Marker
Immunogen	This Glutamate Dehydrogenase Antibody was prepared from whole rabbit serum produced by repeated immunizations with a full length Glutamate Dehydrogenase protein isolated from Bovine Liver. (Uniprot: P00366)
Product Application Details	
Applications	Western Blot, ELISA, Immunohistochemistry, Immunoprecipitation
Recommended Dilutions	Western Blot 1:1000-1:3000, ELISA 1:4000-1:16000, Immunohistochemistry, Immunoprecipitation 1:100

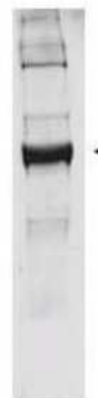
Application Notes

This antibody has been tested by western blot. Specific conditions for reactivity should be optimized by the end user. Bovine glutamate dehydrogenase exists as a homohexamer located within the mitochondrial matrix. Expect a band approximately 56 kDa in size corresponding to glutamate dehydrogenase monomer subunit by western blotting in the appropriate cell or tissue extract. Anti-Glutamate Dehydrogenase Antibody is suitable for use in ELISA.

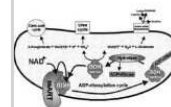
Use in Immunohistochemistry reported in scientific literature (PMID 27623078).

Images

Western Blot: Glutamate Dehydrogenase Antibody [NB600-853] -
Western blot analysis is shown using Glutamate Dehydrogenase antibody to detect the enzyme from bovine liver preparations. Comparison to a molecular weight marker indicates a predominant band of ~62 kDa. The higher molecular weight band may represent a subunit dimer. A 4-20% gradient gel was used to separate proteins prior to transfer to 0.2 um nitrocellulose. The blot was incubated with a 1:1,000 dilution of the antibody for 2 h at room temperature followed by detection using IRDye(TM)800 labeled Goat-a-Rabbit IgG [H&L] diluted 1:5,000 for 45 min at room temperature. IRDye(TM)800 fluorescence image was captured using the Odyssey(R) Infrared Imaging System developed by LI-COR. IRDye is a trademark of LI-COR, Inc. Other detection systems will yield similar results.



N/A: Glutamate Dehydrogenase Antibody [NB600-853]

**Publications**

Talari NK, Mattam U, Meher NK et al. Lipid-droplet associated mitochondria promote fatty-acid oxidation through a distinct bioenergetic pattern in male Wistar rats Nature communications 2023-02-11 [PMID: 36765117] (WB, Rat)

Knudsen ES, Balaji U, Freinkman E et al. Unique metabolic features of pancreatic cancer stroma: relevance to the tumor compartment, prognosis, and invasive potential. Oncotarget. 2016-11-29 [PMID: 27623078] (IF/IHC, Human)

Yang C, Ko B, Hensley CT et al. Glutamine Oxidation Maintains the TCA Cycle and Cell Survival during Impaired Mitochondrial Pyruvate Transport. Mol Cell. 2014-10-21 [PMID: 25458842] (WB, Human)

Details:

Glutamate Dehydrogenase antibody used for WB of whole-cell lysates and preparations of isolated mitochondria (Mito) or cytosol from SFxL cells - SFxL cells generated by infecting SF188 glioma cells with a retroviral vector to express human Bcl-xL pBabe-Hygro-Bcl-xL (Figure 2A). Antibody also used on SFxL cells expressing a control shRNA or either of two shRNAs directed against GLUD1 - shGLUD1-A and shGLUD1-B (Figure 6C)

Bao X, Pal R, Hascup KN et al. Transgenic expression of Glud1 (glutamate dehydrogenase 1) in neurons: in vivo model of enhanced glutamate release, altered synaptic plasticity, and selective neuronal vulnerability. J Neurosci;29 (44):13929-44. 2009-11-04 [PMID: 19890003]



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Products Related to NB600-853

HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-51666-0.1mg	Recombinant Human Glutamate Dehydrogenase His Protein
NBP2-67987	Rat Glutamate Dehydrogenase ELISA Kit (Chemiluminescence)

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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