Product Datasheet

GABA-A R gamma 2 Antibody
NB300-151

Unit Size: 0.05 ml

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

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Publications: 10

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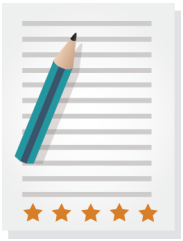
Updated 9/9/2025 v.20.1



NB300-151

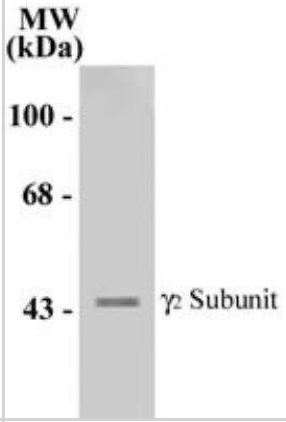
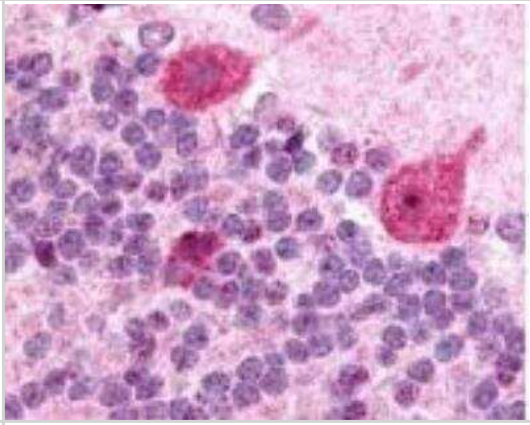
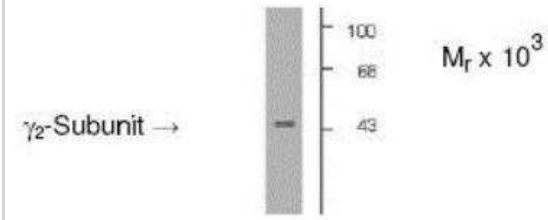
GABA-A R gamma 2 Antibody

Product Information	
Unit Size	0.05 ml
Concentration	This product is unpurified. The exact concentration of antibody is not quantifiable.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	No Preservative
Isotype	IgG
Purity	Unpurified
Buffer	Neat whole antisera
Target Molecular Weight	46 kDa

Product Description	
Description	Novus Biologicals Knockout (KO) Validated Rabbit GABA-A R gamma 2 Antibody (NB300-151) is a polyclonal antibody validated for use in IHC, WB and ICC/IF. Anti-GABA-A R gamma 2 Antibody: Cited in 8 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	2566
Gene Symbol	GABRG2
Species	Human, Mouse, Rat, Turkey, Zebrafish
Reactivity Notes	Mouse reactivity reported in scientific literature (PMID: 16807363). Human reactivity reported in scientific literature (PMID: 24480790). Turkey reactivity reported in scientific literature (PMID: 27055929). Zebrafish reactivity reported in scientific literature (PMID: 28285877).
Specificity/Sensitivity	Specific for endogenous levels of the ~46 kDa gamma 2-subunit of the GABAA receptor.
Immunogen	Synthetic peptide corresponding to amino acid residues specific to the gamma 2 subunit conjugated to KLH. Accession # P18508

Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Knockout Validated
Recommended Dilutions	Western Blot 1:1000, Immunohistochemistry 1:10-1:500, Immunocytochemistry/ Immunofluorescence 1:10-1:500, Immunohistochemistry-Paraffin 1:400, Immunohistochemistry-Frozen, Knockout Validated
Application Notes	Use in Immunocytochemistry/immunofluorescence reported in scientific literature (PMID 24480790). Use in Immunohistochemistry-Frozen reported in scientific literature (PMID 28285877).

Images

Western Blot: GABA-A R gamma 2 Antibody [NB300-151] - 10 ug of rat brain lysate showing immunolabeling of the ~45-47 kDa GABA - A R, g2-subunit.	
Immunohistochemistry-Paraffin: GABA-A R gamma 2 Antibody [NB300-151] - Rat cerebellum.	
Western Blot: GABA-A R gamma 2 Antibody [NB300-151] - 10 ug of rat hippocampal lysate showing immunolabeling of the ~46k gamma2-subunit of the GABA-A R.	

Publications

Su M, Xuan E, Sun X, Pan G et Al. Synaptic adhesion molecule protocadherin-?C5 mediates ?-amyloid-induced neuronal hyperactivity and cognitive deficits in Alzheimer's disease J Neurochem 2024-02-03 [PMID: 38308496]

Li S, Jiang X, Wu Q et al. Electroacupuncture Suppresses CCI-Induced Neuropathic Pain through GABAA Receptors Evidence-based complementary and alternative medicine : eCAM 2022-10-07 [PMID: 36248405] (WB, Rat)

Tamargo-GOmez I, MartInez-GarcIa GG, SuArez MF et al. ATG4D is the main ATG8 delipidating enzyme in mammalian cells and protects against cerebellar neurodegeneration Cell death and differentiation 2021-04-01 [PMID: 33795848]

Hamilton K. Basic Helix Loop Helix Enhancer 40 in Neuronal Excitability and Synaptic Plasticity Dissertation 2016-01-01 (KO, WB, Mouse)

Rao MB, Didiano D, Patton JG. Neurotransmitter-Regulated Regeneration in the Zebrafish Retina. Stem Cell Reports. 2017-03-06 [PMID: 28285877] (IHC-Fr, Zebrafish)

Kosonsiriluk S, Chaiworakul V, Mauro LJ, El Halawani ME. Enhanced GABAergic inhibition in the premammillary nucleus of photorefractory turkey hens via GABAA receptor upregulation. Gen. Comp. Endocrinol. 2016-04-04 [PMID: 27055929] (IF/IHC, Turkey)

Kang Yunhee, Ge Yuan, Cassidy Robert M et al. A combined transgenic proteomic analysis and regulated trafficking of neuroligin-2. J Biol Chem. 2014-10-17 [PMID: 25190809]

Ishii A, Kanaumi T, Sohda M et al. Association of nonsense mutation in GABRG2 with abnormal trafficking of GABAA receptors in severe epilepsy. Epilepsy Research 2014-03-01 [PMID: 24480790] (ICC/IF, IHC-P, Human, Mouse)

Werner DF. Elucidating the Role of Alpha1-containing GABA(A) Receptors in Ethanol Action PhD Thesis University of Pittsburgh (ISBN 0549455426, 9780549455424). 2007-01-01 (WB, Mouse)

Borghese CM, Werner DF, Topf N et al. An isoflurane- and alcohol-insensitive mutant GABA(A) receptor alpha(1) subunit with near-normal apparent affinity for GABA: characterization in heterologous systems and production of knockin mice. J Pharmacol Exp Ther. 2006-10-01 [PMID: 16807363] (WB, Mouse)

Procedures

Western Blot Protocol for GABA A Receptor gamma 2 Antibody (NB300-151)
Western Blot Protocol for GABA A Receptor gamma 2 Antibody (NB300-151):
Western Blot Protocol

1. Pour lower gels according to recipes layer with about 300 ul ethanol and allow to polymerize at least 45 minutes. 7.5% SDS-PAGE gels work well for Synapsin, NR2A, 2B,and 2C antibodies.

2. Rinse off ethanol with water. Shake and/or use a kimwipe to remove excess water. Pour upper gels (stacks) and insert combs. Let polymerize about 15-20 minutes. Remove combs, making sure you pull them straight out, and rinse with water.

3. Attach gel holders to running electrode apparatus and fill chamber with 1X running buffer.

4. Load gels beginning with 10 ul of the kaleidoscope molecular weight marker.

5. Attach electrodes to power source and run gels at 200 Volts for about 45 minutes or until dye front runs down past gray gasket.

6. Turn off power source and remove gel holders from running apparatus first and then carefully remove plates from holders. Remove one plate and leave gel attached to the other plate. Use a spacer or the green scraper to cut off stacks and discard.

7. Place plate with attached gel in some 1X transfer buffer and let equilibrate while you assemble the transfer genie. Transfer buffer + 20% Methanol is standard for many antibodies. NMDA antibodies seem to look a little better in transfer buffer with 5% Methanol + .05% SDS.

8. Wearing gloves cut PVDF membranes to gel size and wet in Methanol to activate for about 30 seconds. Rinse 2-3 times in water. Be sure to keep membrane wet at all times. Put membrane in some 1X transfer buffer until you are ready to use it.

9. Assemble the genie transfer apparatus per instructions on wall. Fill with 1X transfer buffer.

10. Carefully place gels on filter paper and then place PVDF membranes on top of gels making sure there are no air bubbles. Use the sawed-off pipette to roll over sandwich. Complete the assembly of transfer apparatus making sure there is enough buffer to come to the top of the scotch-brite pads.

11. Clean off electrodes with a Q-tip and attach to battery charger. Plug charger in and set to 6 Volts for the mini-genie and 12 Volts for the large genie. Transfer gel for 1.5-2 hours.

12. Take down transfer apparatus and rinse blot a couple of times in water. Place blot on kimwipe and let air dry about 10-15 minutes to fix proteins. Reactivate membranes by rewetting in Methanol and rinsing in water.

13. Block blots in 5% Non-fat dry milk-TTBS for 30 minutes while shaking at room temperature. Blocking time may be increased to an hour if blots look dirty. It is not necessary to block when working with the Synapsin antibody. Milk works great for the NMDA antibodies, but when working with phospho-site or other antibodies that don't like milk, use 3% BSA-TTBS to block.

14. Incubate blots overnight in cold-room in primary antibody diluted in 1% milk TTBS or 1% BSA-TTBS.

15. Decant unbound primary antibody solution (save in fridge) and wash blot 3 x 10 minutes in TTBS.

16. Incubate blots in secondary antibody at a 1:10,000 1:30,000 dilution in 1% Milk or 1% BSA for 1 hour while shaking at room temperature. Use Goat Anti-Rabbit HRP for polyclonals and Goat Anti-Mouse HRP for monoclonals.

17. Decant secondary antibody solution and wash blots 3 x 15 minutes in TTBS or use TTBS + 0.1% Triton X-100 to reduce excessive background if needed.

18. ECL Detect---- Mix equal volumes of each reagent in the Pierce Super Signal ECL kit using just enough to cover blots (0.125 ml/cm of membrane). I use 1 ml of each for a total of 2 mls per standard size blot. Vortex ECL solution briefly and incubate blots in substrate for 1 minute only. Pour off excess ECL solution and blot with a kimwipe to further remove excess. Place blot on a piece of plastic sheet protector and put into the Alpha Chemi-Imager to visualize bands. Set exposures from roughly 15 seconds to 4 minutes.

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Products Related to NB300-151

NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
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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