

Product Datasheet

GABA-A R beta 3 Antibody - Azide Free NB300-199

Unit Size: 0.1 ml

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

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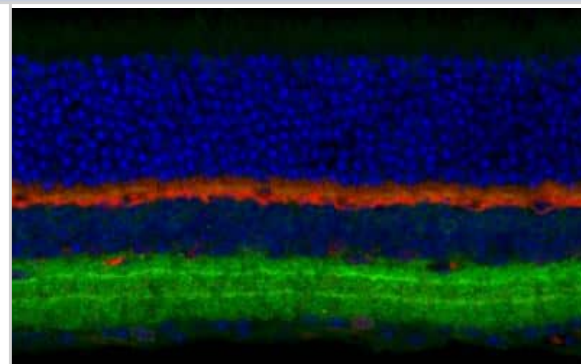
NB300-199**GABA-A R beta 3 Antibody - Azide Free**

Product Information	
Unit Size	0.1 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	No Preservative
Isotype	IgG
Purity	Antigen Affinity-purified
Buffer	10 mM HEPES (pH 7.5), 0.15 M NaCl, 0.1 mg/ml BSA, 50% Glycerol
Target Molecular Weight	53 kDa
Product Description	
Description	Novus Biologicals Rabbit GABA-A R beta 3 Antibody - Azide Free (NB300-199) is a polyclonal antibody validated for use in IHC, WB, ICC/IF and Simple Western. Anti-GABA-A R beta 3 Antibody: Cited in 19 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Rabbit
Gene ID	2562
Gene Symbol	GABRB3
Species	Human, Mouse, Rat
Reactivity Notes	Human reactivity reported in scientific literature (PMID: 21901840).
Specificity/Sensitivity	Specific for the ~53 kDa beta 3-subunit of the GABAA receptor in Western blots.
Immunogen	Fusion protein from the cytoplasmic loop of the beta 3 subunit. Accession # P63079
Product Application Details	
Applications	Western Blot, Simple Western, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry Free-Floating
Recommended Dilutions	Western Blot 1:1000, Simple Western 1:100, Immunohistochemistry 1:300, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry-Paraffin, Immunohistochemistry-Frozen, Immunohistochemistry Free-Floating
Application Notes	Use in Immunohistochemistry free-floating reported in scientific literature (PMID: 26592770). Use in Immunohistochemistry-Frozen reported in scientific literature (PMID: 17021187). Use in Immunocytochemistry/immunofluorescence reported in scientific literature (PMID: 23430456). See Simple Western Antibody Database for Simple Western validation: Human Brain lysate at 0.5 mg/ml as sample; separated by size; antibody dilution of 1:100; observed molecular weight was 48 kDa;matrix was 12-230 kDa; detected by Chemiluminescence.

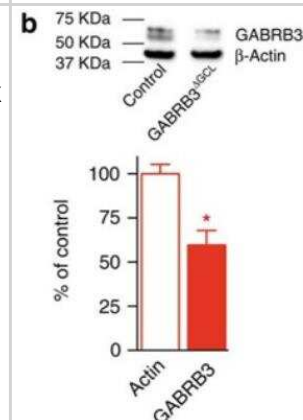


Images

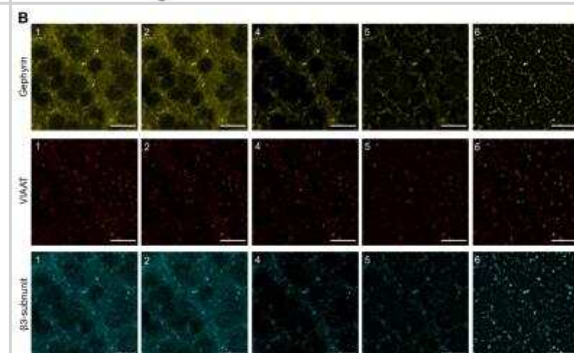
Immunohistochemistry: GABA-A R beta 3 Antibody [NB300-199] - Immunostaining of mouse retina showing specific labeling of the GABAA beta3 subunit in green, calbindin in red and DNA in blue.



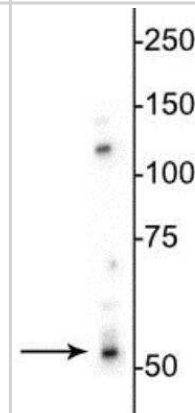
Western Blot: GABA-A R beta 3 Antibody [NB300-199] - Western blot of whole-olfactory bulb homogenates using the B3-subunit antibody in rAAV-Cre-injected versus non-injected GABRB3loxP/loxP mice (each six samples from three mice). The B3-subunit appears as a band of 55 kDa, consistent with its predicted molecular weight. Densitometric analysis (mean \pm s.e.m.) revealed a significant difference (t-test; *P=0.016). Image collected and cropped by CiteAb from the following publication (<https://www.nature.com/articles/ncomms9950>) licensed under a CC-BY license.



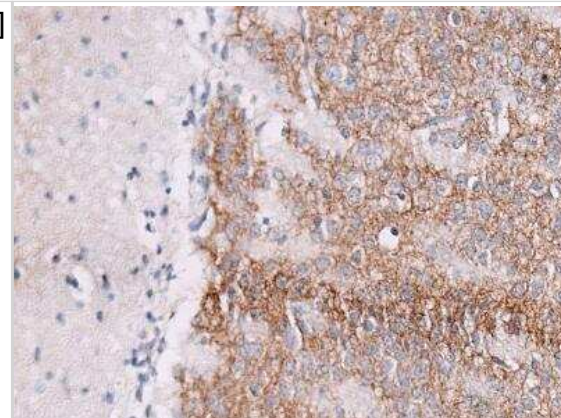
Immunohistochemistry: GABA-A R beta 3 Antibody [NB300-199] - Each channel was filtered frame by frame. The raw data was acquired at high confocal resolution (XY: 234.32 μ m x 234.32 μ m, pixel size = 0.114 μ m) using a 63x glycerol objective (NA=1.3). Z-steps were 0.15 μ m per frame. Acquired raw data (1) was filtered using an anisotropic diffusion 2D filter (2). (5). The final images (6) were obtained by thresholding the immunosignal. Scale bars: 10 μ m. Image collected and cropped by CiteAb from the following publication (<https://www.nature.com/articles/ncomms9950>) licensed under a CC-BY license.



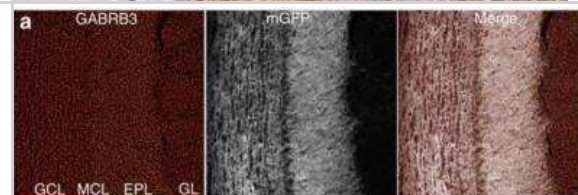
Western Blot: GABA-A R beta 3 Antibody [NB300-199] - Rat brain lysate showing specific immunolabeling of the 53 kDa Beta(3)-subunit of the GABA(A)-R



Immunohistochemistry-Paraffin: GABA-A R beta 3 Antibody [NB300-199]
 - Paraffin-embedded, formalin-fixed mouse head section. WB image submitted by a verified customer review.



Immunohistochemistry-Frozen: GABA-A R beta 3 Antibody [NB300-199]
 - Clustered distribution of the GABA-A R beta 3-subunit. Immunostaining using aGABA-A R beta 3-subunit-selective antibody (red hot colour palette) in horizontal OB slices infected with rAAV-mGFP (grey). The images represent single confocal frames. From left to right, GCL, MC layer (MCL), EPL and glomerular layer (GL). Scale bar, 200 μ m. Image collected and cropped by CiteAb from the following publication (<https://www.nature.com/articles/ncomms9950>) licensed under a CC-BY license.



Publications

Chen M, Chen Y, Huo Q et al. Enhancing GABAergic signaling ameliorates aberrant gamma oscillations of olfactory bulb in AD mouse models *Molecular Neurodegeneration* 2021-12-01 [PMID: 33663578]

Hernandez CC, Hu N, Shen W et al. Epileptic Encephalopathy GABRB Structural Variants Share Common Gating and Trafficking Defects *Biomolecules* 2023-12-14 [PMID: 38136660]

Pizzirusso, G;Preka, E;Goikolea, J;Aguilar-Ruiz, C;Rodriguez-Rodriguez, P;Vazquez-Cabrera, G;Laterza, S;Latorre-Leal, M;Eroli, F;Blomgren, K;Maioli, S;Nilsson, P;Fragkopoulou, A;Fisahn, A;Arroyo-García, LE; Dynamic microglia alterations associate with hippocampal network impairments: A turning point in amyloid pathology progression *Brain, behavior, and immunity* 2024-04-10 [PMID: 38608739]

Wang G, Peng S, Reyes Mendez M et al. The TMEM132B-GABA A receptor complex controls alcohol actions in the brain. *Cell* 2024-09-27 [PMID: 39357522]

Nwosu GI, Shen W, Zavalin K et al. GABAA Receptor γ 3 Subunit Mutation N328D Heterozygous Knock-in Mice Have Lennox-Gastaut Syndrome *International journal of molecular sciences* 2023-05-08 [PMID: 37176165] (WB, Mouse)

Details:

Dilution: 1:1000

Hernandez C, Shen Y, Hu N et al. GABRG2 Variants Associated with Febrile Seizures *Biomolecules* 2023-02-22 [PMID: 36979350] (WB, Human)

Qu S, Catron M, Zhou C et al. GABAA receptor beta 3 subunit mutation D120N causes Lennox-Gastaut syndrome in knock-in mice *Brain Commun* 2020-05-30 [PMID: 32467926]

Hernandez C, Tian X, Hu N et al. Dravet syndrome associated mutations in GABRA1, GABRB2 and GABRG2 define the genetic landscape of defects of GABAA receptors *Brain Commun* 2021-06-07 [PMID: 34095830]

Michaletos G, Walter HL, Antunes ARP Et al. Effect of Anti-inflammatory Treatment with AMD3100 and CX3CR1 Deficiency on GABAA Receptor Subunit and Expression of Glutamate Decarboxylase Isoforms After Stroke *Molecular neurobiology* 2021-08-20 [PMID: 34417725] (WB, Mouse)

Qu S, Zhou C, Howe R et al. The K328M substitution in the human GABAA receptor gamma2 subunit causes GEFS+ and premature sudden death in knock-in mice *Neurobiology of disease* 2021-02-11 [PMID: 33582225]

Bocker HT, Heinrich T, Liebmann L et al. The Na⁺/H⁺ Exchanger Nhe1 Modulates Network Excitability via GABA Release *Cereb. Cortex* 2018-12-12 [PMID: 30541023] (WB, Mouse)

Lu CY, Liu D, Jiang H et al. Effects of traumatic stress induced in the juvenile period on the expression of Gamma-aminobutyric acid receptor type A subunits in adult rat brain. *Hindawi Neural Plasticity*. 2017-03-02 [PMID: 28352479] (IF/IHC, WB, Rat)

More publications at <http://www.novusbio.com/NB300-199>



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Products Related to NB300-199

HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control
NBL1-10922	GABA-A R beta 3 Overexpression Lysate

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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