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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Reviews: 2 Publications: 19

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
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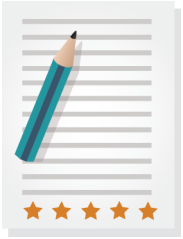
Updated 2/21/2025 v.20.1



NB300-199

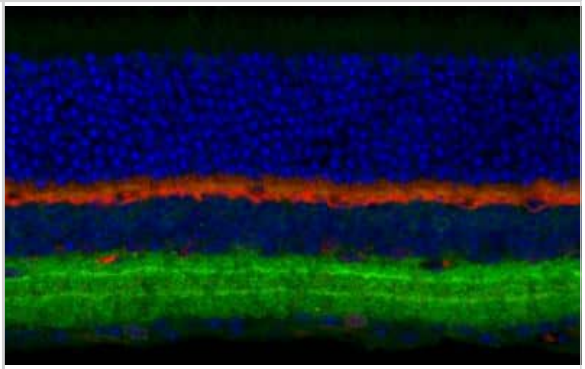
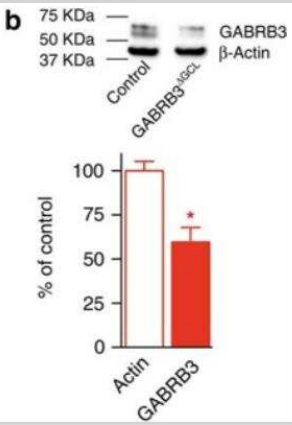
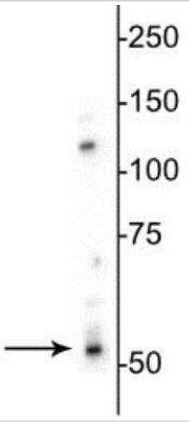
GABA-A R beta 3 Antibody - Azide Free

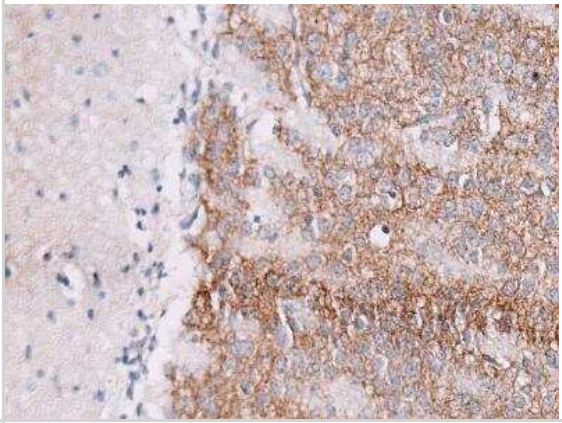
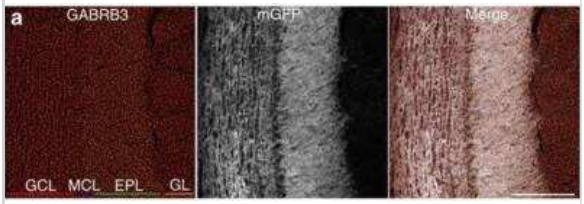
Product Information	
Unit Size	0.1 ml
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	No Preservative
Isotype	IgG
Purity	Antigen Affinity-purified
Buffer	10 mM HEPES (pH 7.5), 0.15 M NaCl, 0.1 mg/ml BSA, 50% Glycerol
Target Molecular Weight	53 kDa

Product Description	
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, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, 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+/-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 um x 234.32 um, pixel size = 0.114 um) using a 63x glycerol objective (NA=1.3). Z-steps were 0.15 um 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: 10um. 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 aG ABA-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 um. Image collected and cropped by CiteAb from the following publication (https://www.nature.com/articles/ncomms9950) licensed under a CC-BY license.	

Publications

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]

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]

Nwosu GI, Shen W, Zavalin K et al. GABAA Receptor ?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]

Michalettos 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

Novus Biologicals USA
10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada
21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd
19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information
www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

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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