

Product Datasheet

GABA-A R beta 3 Antibody

NB300-199

Unit Size: 0.1 ml

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

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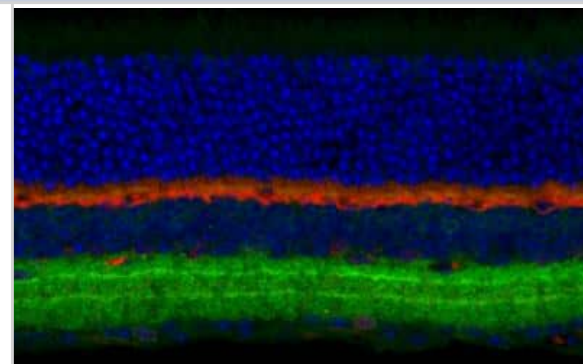


NB300-199**GABA-A R beta 3 Antibody**

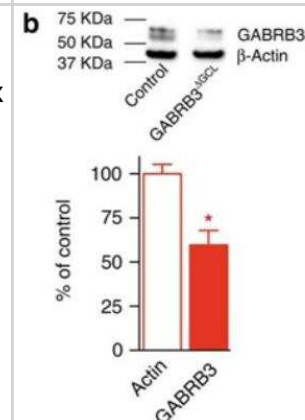
Product Information	
Unit Size	0.1 ml
Concentration	Please see the vial label for concentration. If unlisted please contact technical services.
Storage	Store at -20C. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	No Preservative
Isotype	IgG
Purity	Antigen Affinity-purified
Buffer	10 mM 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 reported by internal validation, 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). In Simple Western internal 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

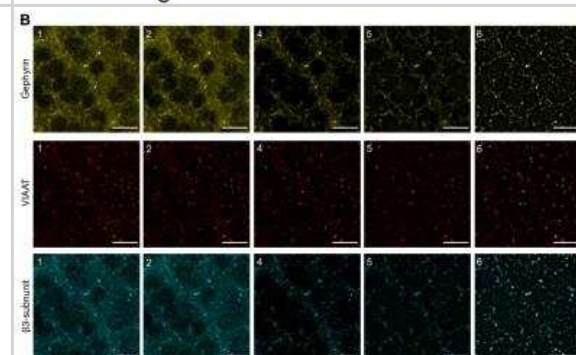
Immunohistochemistry: GABA-A R beta 3 Antibody [NB300-199] - Immunostaining of mouse retina showing specific labeling of the GABAA beta3 subunit in green, calbindin in red and DNA in blue.



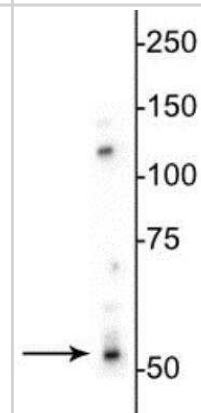
Western Blot: GABA-A R beta 3 Antibody [NB300-199] - Western blot of whole-olfactory bulb homogenates using the B3-subunit antibody in rAAV-Cre-injected versus non-injected GABRB3loxP/loxP mice (each six samples from three mice). The B3-subunit appears as a band of 55 kDa, consistent with its predicted 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.



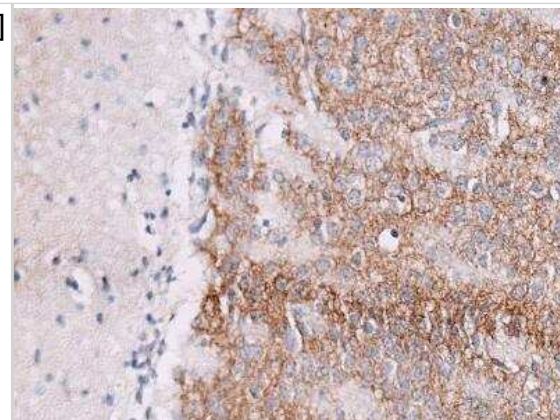
Immunohistochemistry: GABA-A R beta 3 Antibody [NB300-199] - Each channel was filtered frame by frame. The raw data was acquired at high confocal resolution (XY: 234.32 μ m x 234.32 μ m, pixel size = 0.114 μ m) using a 63x glycerol objective (NA=1.3). Z-steps were 0.15 μ m per frame. Acquired raw data (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.



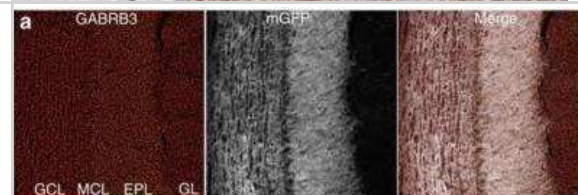
Western Blot: GABA-A R beta 3 Antibody [NB300-199] - Rat brain lysate showing specific immunolabeling of the 53 kDa Beta(3)-subunit of the GABA(A)-R



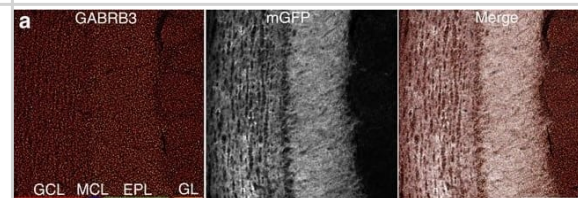
Immunohistochemistry-Paraffin: GABA-A R beta 3 Antibody [NB300-199]
 - Paraffin-embedded, formalin-fixed mouse head section. WB image submitted by a verified customer review.



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 um. Image collected and cropped by CiteAb from the following publication (<https://www.nature.com/articles/ncomms9950>) licensed under a CC-BY license.



Clustered distribution of the beta3-subunit.(a) Immunostaining using a beta3-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 licence.



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]

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)

Nunes D, Kuner T. Disinhibition of olfactory bulb granule cells accelerates odour discrimination in mice. *Nat Commun*. 2015-11-23 [PMID: 26592770] (WB, IHC-FrFl, Mouse)

Fatemi SH, Reutiman TJ, Folsom TD et al. GABA(A) receptor downregulation in brains of subjects with autism. *J Autism Dev Disord* 2009-02-01 [PMID: 18821008] (Human)

Fatemi SH, Folsom TD, KneelRE, Liesch SB. Metabotropic glutamate receptor 5 upregulation in children with autism is associated with underexpression of both Fragile X mental retardation protein and GABAA receptor beta 3 in adults with autism. *Anat Rec (Hoboken)* 2011-10-01 [PMID: 21901840] (WB, Human)

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
H00002562-Q01-10ug	Recombinant Human GABA-A R beta 3 GST (N-Term) Protein

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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