

Product datasheet

Anti-BDNF antibody [EPR1292] - Low endotoxin, Azide free ab216443

Recombinant RabMAb

[2 References](#) [8 Images](#)

Overview

Product name	Anti-BDNF antibody [EPR1292] - Low endotoxin, Azide free
Description	Rabbit monoclonal [EPR1292] to BDNF - Low endotoxin, Azide free
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P, Flow Cyt, ICC/IF, IHC-Fr
Species reactivity	Reacts with: Mouse, Rat, Human
Immunogen	Synthetic peptide within Human BDNF. The exact sequence is proprietary. (Peptide available as ab182199)
Positive control	WB: Human, rat and mouse brain, hippocampus and cerebellum lysates; IHC-P: Human brain tissue, human bladder cancer tissue; Coronal sections from fetal (SNc) and post-natal (VTA) WT and Rgs6 ^{-/-} mice.; ICC/IF: HeLa cells; Flow Cyt: HeLa cells; IHC-Fr: Mouse and Rat cerebrum tissue.
General notes	<p>ab206035 is the Low endotoxin, azide-free version of ab108319 This format is designed for in vitro and in vivo studies, including neutralization, blocking or activation/proliferation.</p> <p>Our Low endotoxin, azide-free formats have low endotoxin level (≤ 1 EU/ml, determined by the LAL assay) and are free from azide, to achieve consistent experimental results in functional assays.</p> <p>For BDNF, multiple WB bands are possible and expected. The human protein has 5 isoforms (precursors: 28 – 37 kDa) and can be glycosylated (Uniprot: P23560). The mature form is expected at ~14 kDa (monomer) and the dimer at ~28 kDa.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p>

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Constituent: 49% PBS
Carrier free	Yes
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR1292
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab216443** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

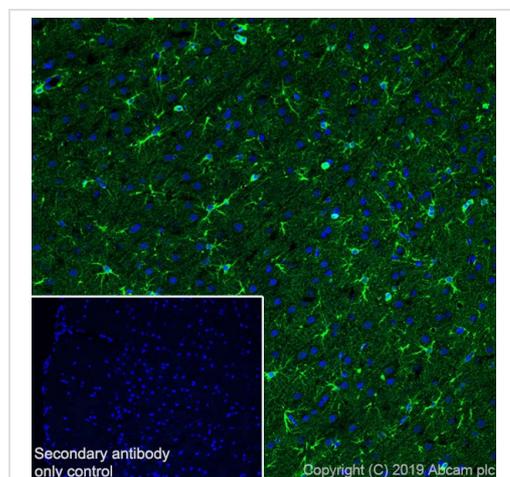
Application	Abreviews	Notes
WB		Use at an assay dependent concentration. Predicted molecular weight: 15 kDa. Can be blocked with Human BDNF peptide (ab182199) .
IHC-P		Use at an assay dependent concentration. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. Heat up to 98 degrees C, below boiling, and then let cool for 10-20 min.
Flow Cyt		Use at an assay dependent concentration.
ICC/IF		Use at an assay dependent concentration.
IHC-Fr		Use at an assay dependent concentration. Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20)

Target

Function	During development, promotes the survival and differentiation of selected neuronal populations of the peripheral and central nervous systems. Participates in axonal growth, pathfinding and in the modulation of dendritic growth and morphology. Major regulator of synaptic transmission and plasticity at adult synapses in many regions of the CNS. The versatility of BDNF is emphasized by its contribution to a range of adaptive neuronal responses including long-term potentiation (LTP), long-term depression (LTD), certain forms of short-term synaptic plasticity, as well as homeostatic regulation of intrinsic neuronal excitability.
Tissue specificity	Brain. Highly expressed in hippocampus, amygdala, cerebral cortex and cerebellum. Also expressed in heart, lung, skeletal muscle, testis, prostate and placenta.
Involvement in disease	Bulimia nervosa 2 Congenital central hypoventilation syndrome

Sequence similarities	Belongs to the NGF-beta family.
Post-translational modifications	The propeptide is N-glycosylated and glycosulfated. Converted into mature BDNF by plasmin (PLG).
Cellular localization	Secreted.

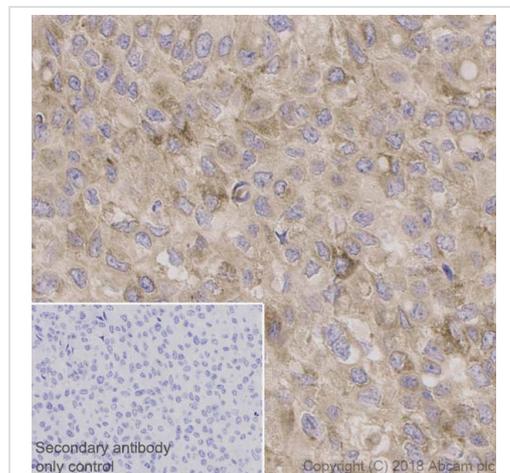
Images



Immunohistochemistry (Frozen sections) - Anti-BDNF antibody [EPR1292] - Low endotoxin, Azide free (ab216443)

Immunohistochemistry (Frozen sections) analysis of rat cerebral cortex tissue sections labeling BDNF with Purified [ab108319](#) at 1/100 (2.8 µg/ml). Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20). Goat anti rabbit IgG (Alexa Fluor® 488, [ab150077](#)) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. DAPI was used as a counterstain.

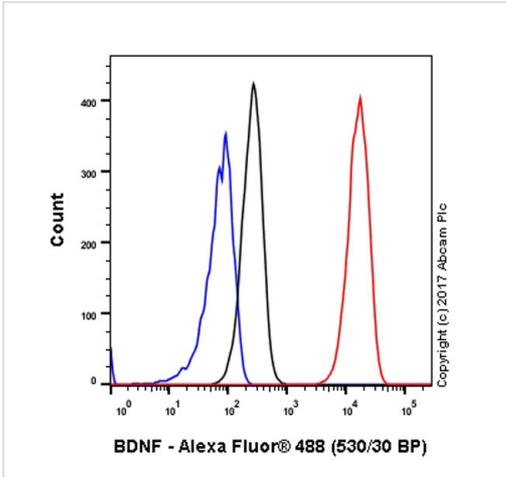
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab108319](#)).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BDNF antibody [EPR1292] - Low endotoxin, Azide free (ab216443)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of Human bladder cancer tissue sections labeling BDNF with Purified [ab108319](#) at 1:500 dilution (0.56 µg/ml). Heat mediated antigen retrieval was performed using [ab93684](#) (Tris/EDTA buffer, pH 9.0)

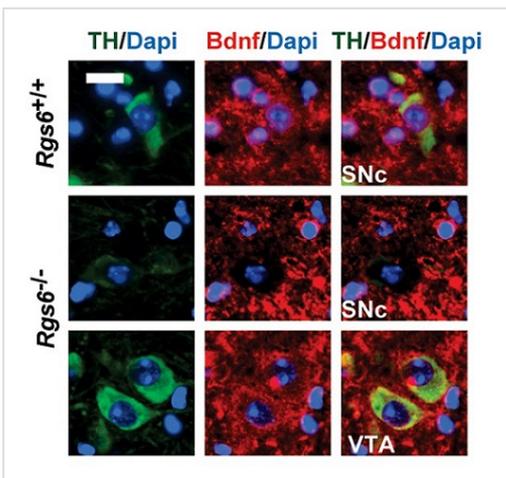
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab108319](#)).



Flow Cytometry - Anti-BDNF antibody [EPR1292] - Low endotoxin, Azide free (ab216443)

Flow Cytometry analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling BDNF with purified [ab108319](#) at 1:30 dilution (10 µg/ml) (red). Cells were fixed with 80% methanol. A Goat anti rabbit IgG (Alexa Fluor® 488) secondary antibody was used at 1:2000 dilution. Isotype control - Rabbit monoclonal IgG (Black). Unlabeled control - Cell without incubation with primary antibody and secondary antibody (Blue).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab108319](#)).



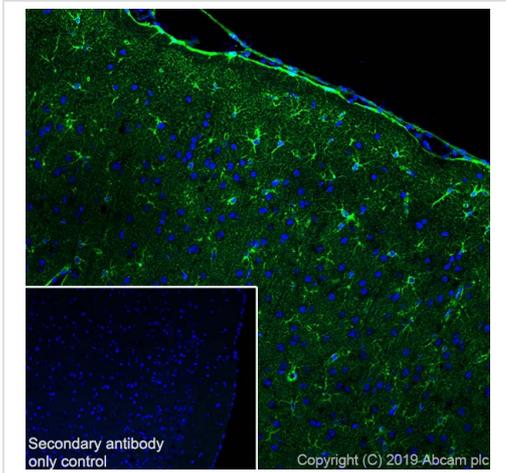
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BDNF antibody [EPR1292] - Low endotoxin, Azide free (ab216443)

Image from Bifsha P et al. PLoS Genet 11(10) Fig 7C. doi: 10.1371/journal.pgen.1004863.

Co-immunofluorescence staining against tyrosine hydroxylase (TH; green), nuclear Dapi (blue) and BDNF (red, [ab108319](#)) in coronal sections from fetal (SNc) and post-natal (VTA) *WT* and *Rgs6*^{-/-} mice. Scale bar 20 µm.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab108319](#)).

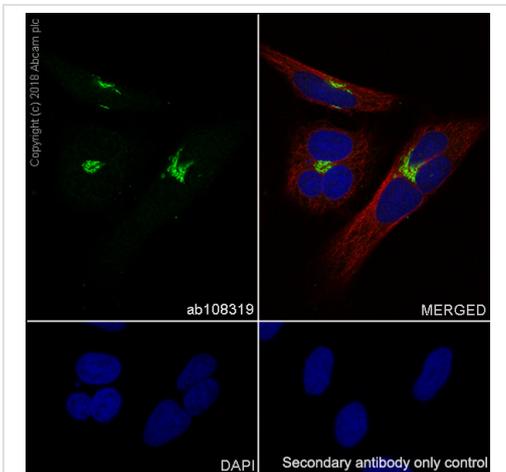
Perform heat mediated antigen retrieval before commencing with IHC staining protocol.



Immunohistochemistry (Frozen sections) - Anti-BDNF antibody [EPR1292] - Low endotoxin, Azide free (ab216443)

Immunohistochemistry (Frozen sections) analysis of mouse cerebrum tissue sections labeling BDNF with Purified [ab108319](#) at 1/100 (2.8 µg/ml). Heat mediated antigen retrieval using sodium citrate buffer (10mM citrate pH 6.0 + 0.05% Tween-20). Goat anti rabbit IgG (Alexa Fluor® 488, [ab150077](#)) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. DAPI was used as a counterstain.

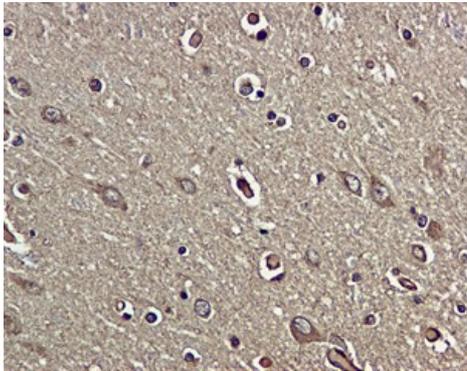
This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab108319](#)).



Immunocytochemistry/ Immunofluorescence - Anti-BDNF antibody [EPR1292] - Low endotoxin, Azide free (ab216443)

Immunocytochemistry/ Immunofluorescence analysis of HeLa (Human cervix adenocarcinoma epithelial cell) cells labeling BDNF with Purified [ab108319](#) at 1:500 (0.6 µg/ml). Cells were fixed in 100% Methanol and permeabilized with None. Cells were counterstained with Ab195889 Anti-alpha Tubulin antibody [DM1A] - Microtubule Marker (Alexa Fluor® 594) 1:200 (2.5 µg/ml). Goat anti rabbit IgG (Alexa Fluor® 488, [ab150077](#)) was used as the secondary antibody at 1:1000 (2 µg/ml) dilution. DAPI nuclear counterstain. PBS instead of the primary antibody was used as the secondary antibody only control.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab108319](#)).

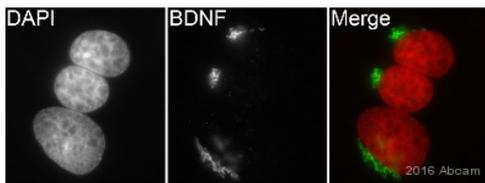


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-BDNF antibody [EPR1292] - Low endotoxin, Azide free (ab216443)

This IHC data was generated using the same anti-BDNF antibody clone, EPR1292, in a different buffer formulation (cat# [ab108319](#)).

Immunohistochemical analysis of paraffin-embedded Human brain tissue using [ab108319](#) at 1/100

Heat mediated antigen retrieval was performed before commencing with IHC staining protocol.



Immunocytochemistry/ Immunofluorescence - Anti-BDNF antibody [EPR1292] - Low endotoxin, Azide free (ab216443)

This image is courtesy of an Abreview submitted by Kirk McManus.

Immunocytochemistry/ Immunofluorescence analysis of HeLa (human cervix adenocarcinoma) cells labelling BDNF with unpurified [ab108319](#) at a dilution of 1/750. Cells were fixed with paraformaldehyde and permeabilized with 0.5% Triton-X100 in PBS. [ab150081](#) (1/200) was used as the secondary antibody.

The antibody produces a strong, golgi-associated labelling pattern in both PF and MeOH fixed samples.

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide ([ab108319](#)).

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