

Ultra-LEAF™ Purified anti-human BDNF Recombinant Antibody

Catalog# / Size	936803 / 100 µg 936804 / 1 mg
Clone	QA19A71
Regulatory Status	RUO
Other Names	Brain-derived neurotrophic factor, ANON2, BLUN2
Isotype	Mouse IgG1, κ
Description	Brain-derived neurotrophic factor (BDNF) is the second member of the NGF family of neurotrophic factors (neurotrophins) that includes nerve growth factor (NGF), neurotrophin-3 (NT-3) and neurotrophin-4/5 (NT-4/5). BDNF shares approximately 55% amino acid identity with other family members. The amino acid sequence of mature BDNF is identical in all mammals examined. All neurotrophins are non-covalently linked homodimers and initially produced as proneurotrophins. These proneurotrophins have distinct biological activity from their mature counterparts. Mature BDNF promotes the survival and differentiation of selected neuronal populations of the peripheral and central nervous systems during development. BDNF participates in axonal growth, pathfinding and in the modulation of dendritic growth and morphology. BDNF is also a major regulator of synaptic transmission and plasticity at adult synapses in many regions of the CNS. High levels of expression of BDNF have been detected in the hippocampus, cerebellum, fetal eye and placenta. BDNF binds with high affinity and specifically activates the TrkB tyrosine kinase receptor.

Product Details

Verified Reactivity	Human
Antibody Type	Recombinant
Host Species	Mouse
Immunogen	Recombinant human BDNF
Formulation	0.2 µm filtered in phosphate-buffered solution, pH 7.2, containing no preservative. Endotoxin level is < 0.01 EU/µg of the protein (< 0.001 ng/µg of the protein) as determined by the LAL test.
Preparation	The Ultra-LEAF™ (Low Endotoxin, Azide-Free) antibody was purified by affinity chromatography.
Concentration	The antibody is bottled at the concentration indicated on the vial, typically between 2 mg/mL and 3 mg/mL. Older lots may have also been bottled at 1 mg/mL. To obtain lot-specific concentration, please enter the lot number in our Concentration and Expiration Lookup or Certificate of Analysis online tools.
Storage & Handling	The antibody solution should be stored undiluted between 2°C and 8°C. This Ultra-LEAF™ solution contains no preservative; handle under aseptic conditions.
Application	Neut - Quality tested
Recommended Usage	Each lot of this antibody is quality control tested by the inhibition of proliferation induced by human BDNF (4 µg/mL) on C6 glioma cells. ND ₅₀ range: 1 - 5 µg/mL. It is recommended that the reagent be titrated for optimal performance for each application.
RRID	AB_2892499 (BioLegend Cat. No. 936803) AB_2892499 (BioLegend Cat. No. 936804)

Antigen Details

Structure	Non-covalently linked homodimer
Distribution	Ubiquitous with high levels in peripheral tissues including prostate, placenta, pancreas, heart, kidney, pituitary gland, lung and testis.

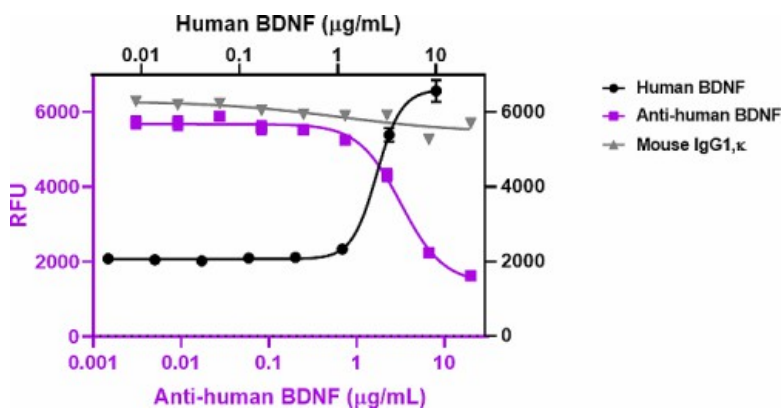
Function	Supports the survival of sensory and sympathetic neurons, and also dopaminergic midbrain neurons.
Interaction	Sensory neurons, sympathetic neurons, midbrain dopaminergic neurons.
Ligand/Receptor	TrkB
Cell Type	Neural Stem Cells, Neurons
Biology Area	Neurodegeneration, Neuroscience, Stem Cells, Synaptic Biology
Molecular Family	Growth Factors
Antigen References	<ol style="list-style-type: none"> 1. Baloh RH, <i>et al.</i> 1998. <i>Neuron</i>. 21:1291-302. 2. Masure S, <i>et al.</i> 1999. <i>Eur J Biochem</i>. 266:892-902. 3. Gardell LR, <i>et al.</i> 2003. <i>Nature Med</i>. 9:1383-9. 4. Honma Y, <i>et al.</i> 2002. <i>Neuron</i>. 35:267-82. 5. Banerjee A, <i>et al.</i> 2012. <i>PLoS One</i>. 7:e50098. 6. Wong LE, <i>et al.</i> 2015. <i>Proc Natl Acad Sci USA</i>. 112:6170-5. 7. Zhang M, <i>et al.</i> 2016. <i>Oncotarget</i>. 7:3267-82.

Gene ID [627](#)

Other Formats

Ultra-LEAF™ Purified anti-human BDNF Recombinant Antibody

Product Data



Recombinant human BDNF (black circles) (Cat. No. 788904) induces the proliferation of C6 glioma cells. Ultra-LEAF™ purified anti-human BDNF recombinant antibody (clone QA19A71) (purple squares) inhibits the effect of recombinant human BDNF (at 4 µg/mL) in C6 cells in a dose - dependent manner whereas the isotype control (gray triangles) (Cat. No. 400193) does not have the effect. The ND₅₀ = 1 - 5 µg/mL.

For research use only. Not for diagnostic use. Not for resale. BioLegend will not be held responsible for patent infringement or other violations that may occur with the use of our products.

*These products may be covered by one or more Limited Use Label Licenses (see the BioLegend Catalog or our website, www.biolegend.com/ordering#license). BioLegend products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products, reverse engineer functionally similar materials, or to provide a service to third parties without written approval of BioLegend. By use of these products you accept the terms and conditions of all applicable Limited Use Label Licenses. Unless otherwise indicated, these products are for research use only and are not intended for human or animal diagnostic, therapeutic or commercial use.

BioLegend Inc., 8999 BioLegend Way, San Diego, CA 92121 www.biolegend.com
Toll-Free Phone: 1-877-Bio-Legend (246-5343) Phone: (858) 768-5800 Fax: (877) 455-9587