

Rabbit antibody to rhBDNF: affinity purified

Catalogue No.:	R-1707-100
Description:	BDNF belongs to the neurotrophin family and promotes the survival of neuronal populations that are all located either in the central nervous system or directly connected to it. It is a 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. The alterations in BDNF expression induced by various kinds of brain insult including stress, ischemia, seizure activity and hypoglycemia, may contribute to some pathologies such as depression, epilepsy, Alzheimer's, and Parkinson's disease. Microglia release BDNF that may contribute to neuroinflammation and neuropathic pain. SUBUNIT: Monomers and homodimers. Binds to NTRK2/TRKB. SUBCELLULAR LOCATION: Secreted protein. POst translation modification: Converted into mature BDNF by plasmin (PLG). SIMILARITY: Belongs to the NGF-beta family.
Batch No.:	See product label.
Unit size:	100 ug
Antigen:	Antibody was raised against a GST-tagged rhBDNF fusion protein and expressed in and purified from E. coli.
Antibody Type:	Rabbit polyclonal.
Other Names:	Brain-derived neurotrophic factor; Abrineurin
Accession:	BDNF_HUMAN
Produced in:	Rabbit
Molecular Weight:	Mature BDNF dimer has a molecular weight of 28 kDa. In Western Blotting, mature BDNF monomer migrates at 14 kDa.
Purity:	Affinity purified on antigen column.
Applications:	Western Blotting (denaturing and reducing): 0.2 to 1 ug/mL. Antibody detects 14 kDa mature BDNF monomer and 32 kDa proBDNF monomer in cell lysate and tissue homonenate. Antibody has only been tested on cell lysate and tissue homogenate of human origin. Acid-treated samples may give cleaner blots, and enhance signals for BDNF. R-1707-100 is not recommended for human serum samples. For human serum analysis, we recommend mouse monoclonal antibody to rhBDNF (M-1744-50/100), or rabbit polyclonal antibody to BDNF peptide 1-10 (R-083-100, whole serum; R-066-500, IgG).Flow Cytometry: ~2 ug per 10 ⁶ cells, methanol fixation. Note: R-1707-100 cannot be used to distinguish the flow cytometry signal originating from mature BDNF versus proBDNF.Biosensis recommends optimal dilutions/concentrations should be determined by the end user.
Specificity:	Human, rat and mouse BDNF. Expected to detect BDNF from other species due to sequence homology.
Cross-reactivity:	No cross-reactivity with other neurotrophins.
Form:	Lyophilized from a solution containing PBS pH 7.4, 3% trehalose, with 0.05% sodium azide.

FOR RESEARCH USE ONLY

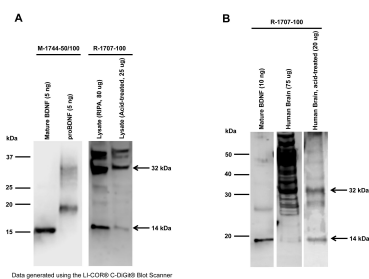
Rabbit antibody to rhBDNF: affinity purified

Reconstitution: Spin vial briefly before opening. Reconstitute vial with 100 μ L sterile water to obtain a concentration of 1 mg/mL.

Storage: Store lyophilized antibody at 2-8°C protected from moisture. After reconstitution divide antibody into useful aliquots and keep aliquots at -20°C to -80°C for a higher stability. Working aliquots can be kept at 2-8°C for up to 1 month. Avoid repetitive freeze/thaw cycles.

Expiry Date: 12 months after purchase if unopened.

References: Instructions for Acid-Extraction of Brain Tissue
BDNF Antibodies for Western Blotting



Western blot analysis of BDNF expression in human SH-SY5Y cell lysates (A) and human brain (B). Polyclonal rhBDNF antibody R-1707-100 (1 μ g/mL) detects monomeric BDNF at 14 kDa, and monomeric proBDNF at 32 kDa in lysates prepared either in RIPA buffer or in acid-extraction buffer (A). Control antibody M-1744-50/100 (1 μ g/mL) confirms detection of mature BDNF (Lane 1) and proBDNF (Lane 2) using BDNF and proBDNF proteins. A second band at 18 kDa is observed in the proBDNF standard, likely to represent a proBDNF degradation product. In human brain (B), R-1707-100 detects mature BDNF (14 kDa) and proBDNF (32 kDa) in both preparations (Tris-buffer and acid-treated). Acid-treated brain demonstrates lower background staining and gives a stronger BDNF signal.

Western Blotting Method: SDS-PAGE: denaturing and reducing, 12% Bis-Tris gel; Transfer: Tris-Glycine buffer, semi-dry transfer; Membrane: nitrocellulose (0.22 μ m); Blocking: 5% skim milk in TBST, 1 hour at RT; Primary antibody: overnight at 4°C; Secondary antibody: anti-mouse-HRP or anti-rabbit-HRP (1/6000), 2 hours at RT; Detection: Chemiluminescence.

FOR RESEARCH USE ONLY