

## Rabbit antibody to BDNF (129-138): IgG

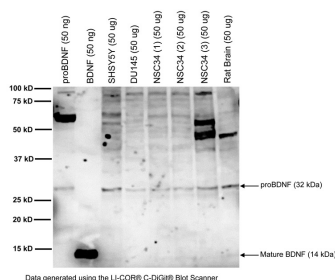
<b>Catalogue No.:</b>	R-066-500
<b>Description:</b>	<p>BDNF belongs to the neurotrophin family and regulates the survival and differentiation of neurons during development. The alterations in BDNF expression induced by various kinds of brain insult including stress, ischemia, seizure activity and hypoglycemia, 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.</p> <p>FUNCTION: Promotes the survival of neuronal populations that are all located either in the central nervous system or directly connected to it. 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. 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.</p>
<b>Batch No.:</b>	See product label
<b>Unit size:</b>	500 ug
<b>Antigen:</b>	A synthetic peptide (HSDPARRGEL) as a part of human BDNF protein (aa: 129-138) conjugated to KLH has been used as the immunogen. The BDNF protein sequence is highly conserved amongst mammalian species.
<b>Other Names:</b>	Brain-derived neurotrophic factor; Abrineurin; proBDNF;
<b>Accession:</b>	BDNF_HUMAN
<b>Produced in:</b>	Rabbit
<b>Purity:</b>	Protein G purified IgG
<b>Applications:</b>	<p>Western Blotting: A concentration of 1-10 ug/mL is recommended for this application. In Western Blotting, this antibody detects multiple BDNF isoforms (14 kDa mature BDNF, 18 kDa isoform, 28 kDa BDNF dimer/truncated BDNF, 32 kDa proBDNF monomer) depending on sample application (human serum, cell lysate, tissue homogenate). IHC: Antibody works well in immunohistochemistry with the proper fixation, pretreatments and dilution. Formal fixed, paraffin embedded tissue is not recommend. Recommended fixation is Zamboni's fixative or light 4% PFA fixation on fixed, frozen tissue. Recommended dilution is 1-10 ug/mL for immunohistochemistry at 4centigrade for 2-48 hours. ELISA: 1-10 ug/mL capture/detection. Biosensis recommends optimal dilutions/concentrations should be determined by the end user.</p>
<b>Specificity:</b>	Less than 0.1% cross reactivity with mouse NGF, recombinant human NT3 and NT4/5 has been recorded by dot blot analysis.
<b>Cross-reactivity:</b>	This antiserum is known to recognise rat, mouse and human BDNF, and is expected to react with BDNF from other species due to amino acid sequence homology.
<b>Form:</b>	Lyophilised from PBS, pH 7.4, without preservatives.

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- Reconstitution:** Reconstitute in 500 uL of sterile water. Centrifuge to remove any insoluble material.
- Storage:** After reconstitution keep aliquots at -20C for a higher stability, and at 2-8C with an appropriate antibacterial agent. Glycerol (1:1) may be added for an additional stability. Avoid repetitive freeze/thaw cycles.
- Expiry Date:** 12 months after purchase
- Specific References:** Feron F et al (2008) Neurotrophin expression in the adult olfactory epithelium. Brain Res. 1196:13-21 Application: IHC; Species: Rat
- General References:**
1. A Acheson et al (1995) Nat. 74: 450-3
  2. Q Yan et al (1994) J. Neurosci. 14(9): 5281-91
  3. XF Zhou et al (1996) Neurosci. 74: 945-53
  4. XF Zhou, et al (1998) Exp. Neurol. 149: 237-42
  5. B Mellstrom et al (2004) Crit Rev Neurobiol 16, 43-9
  6. I Tapia-Arancibia et al (2004) Front Neuroendocrinol 25, 77-107
  7. S Pezet, et al (2002) Brain Res Brain Res Rev 40, 240-9
  8. Barde Y. A. et al (1989) EMBO J. 1: 549
  9. Conner J et al. (1997) J. Neurosci. 17: 2295
  10. JA Coull et al (2005) Nature. Dec 15;438(7070):1017-21.
  11. C Gomes et al (2013) J Neuroinflammation. Jan 30;10:16.
- References:** BDNF Antibodies for Western Blotting



Western blot analysis of BDNF expression in cell lysates and brain homogenate. Polyclonal rabbit BDNF antibody to BDNF (129-138) detects proBDNF at 32 kDa in samples. Additional uncharacterized bands are observed at higher molecular weights. Western Blotting Method: SDS-PAGE: denaturing and reducing, 12% Bis-Tris gel; Transfer: Tris-Glycine buffer, semi-dry transfer; Membrane: nitrocellulose (0.22 um); Blocking: 5% skim milk in TBST, 1 hour at RT; Primary antibody: 10 ug/mL, overnight at 4C; Secondary antibody: anti-rabbit-HRP (1/5000), 1 hour at RT; Detection: Chemiluminescence

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