

## Sheep antibody to rh BDNF: IgG

Catalogue No.: S-015-500

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: 500 ug

Antigen: Recombinant human BDNF

Other Names: Brain-derived neurotrophic factor; Abrineurin; proBDNF;

Accession: BDNF\_HUMAN

Produced in: Sheep

Purity: Protein G purified IgG

Applications: IHC, Inhibition of biological activity in vitro/in vivo, ELISA. Recommended to be used at an

amount of 1-10 ug/mL for immunohistochemistry on Zamboni's fixed, frozen tissue. Not recommended for paraffin embedded tissues. Primary use is for biological activity in vitro and in vivo. Use neat for in vivo studies at 2-10 ug/mL (ED50). This antibody does not react to BDNF in western blot, thus western blot is not a recommended application. Biosensis recommends

optimal dilutions/concentrations should be determined by the end user.

**Specificity:** A cross reactivity of less than 1% against mouse NGF, recombinant human NT3 or NT4/5 has

been shown by one site ELISA.

**Cross-reactivity:** Known to react with BDNF from rat and human.

Form: Lyophilised

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: 1. Hayashida K., Eisenach J.C.(2010) Spinal alpha2-adrenoceptor-mediated analgesia in

neuropathic pain reflects brain-derived nerve growth factor and changes in spinal cholinergic

## FOR RESEARCH USE ONLY



## Sheep antibody to rh BDNF: IgG

neuronal function Anesthesiology. 2010 Aug;113(2):406-12.

2. Geremia N.M. et al (2010) Endogenous BDNF regulates induction of intrinsic neuronal growth programs in injured sensory neurons Exp Neurol. 2010 May;223(1):128-42.

## References:

- 1. Vissio P.G. et al (2008) Brain-derived neurotrophic factor (BDNF)-like immunoreactivity localization in the retina and brain of Cichlasoma dimerus (Teleostei, Perciformes) Tissue Cell. 2008 Aug;40(4):261-70.2. A Acheson et al (1995) Nat. 74: 450-3
- 3. Q Yan et al (1994) J. Neurosci. 14(9): 5281-91
- 4. XF Zhou et al (1996) Neurosci. 74: 945-53
- 5. XF Zhou, et al (1998) Exp. Neurol. 149: 237-42
- 6. B Mellstrom et al (2004) Crit Rev Neurobiol 16, 43-9
- 7. I Tapia-Arancibia et al (2004) Front Neuroendocrinol 25, 77-107
- 8. S Pezet, et al (2002) Brain Res Brain Res Rev 40, 240-9
- 9. JA Coull et al (2005) Nature. Dec 15;438(7070):1017-21.
- 10. C Gomes et al (2013) J Neuroinflammation. Jan 30;10:16.