10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

BDNF Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1909a

Product Information

Application	WB, ICC, E
Primary Accession	P23560
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	3D9C5
Isotype	IgG1
Calculated MW	27818
Description	The protein encoded by this gene is a member of the nerve growth factor family. It is induced by cortical neurons, and is necessary for survival of striatal neurons in the brain. Expression of this gene is reduced in both Alzheimer's and Huntington disease patients. This gene may play a role in the regulation of stress response and in the biology of mood disorders. Multiple transcript variants encoding distinct isoforms have been described for this gene.
Immunogen	Purified recombinant fragment of human BDNF (AA: 19-248) expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide.

Additional Information

Gene ID	627
Other Names	Brain-derived neurotrophic factor, BDNF, Abrineurin, BDNF
Dilution	WB~~1/500 - 1/2000 ICC~~N/A E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	BDNF Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	BDNF {ECO:0000303|PubMed:28397838, ECO:0000312|HGNC:HGNC:1033}
Function	Important signaling molecule that activates signaling cascades downstream

of NTRK2 (PubMed:11152678). 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.

Cellular Location

Secreted

Tissue Location

Detected in blood plasma and in saliva (at protein level) (PubMed:11152678, PubMed:19467646). Brain. Highly expressed in hippocampus, amygdala, cerebral cortex and cerebellum. Also expressed in heart, lung, skeletal muscle, testis, prostate and placenta

References

1. Br J Cancer. 2013 Jan 15;108(1):121-30. 2. PLoS One. 2012;7(8):e42676.

Images

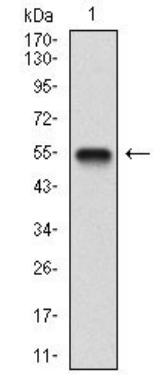

Figure 1: Western blot analysis using BDNF mAb against human BDNF (AA: 19-248) recombinant protein. (Expected MW is 51.7 kDa)

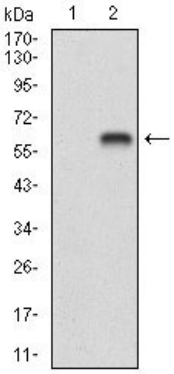

Figure 2: Western blot analysis using BDNF mAb against HEK293 (1) and BDNF (AA: 19-248)-hIgGFc transfected HEK293 (2) cell lysate.

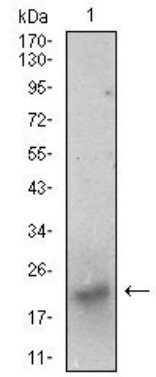

Figure 3: Western blot analysis using BDNF mouse mAb against SK-N-SH (1) cell lysate.

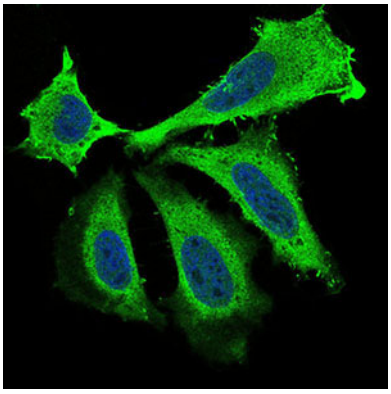

Figure 4: Immunofluorescence analysis of Hela cells using BDNF mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Secondary antibody from Fisher (Cat#: 35503)