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**

## Specification

## BDNF Antibody - Product Information

| | |
|---|---|
| Application | **WB, ICC, E** |
| Primary Accession | P23560 |
| Reactivity | **Human** |
| Host | **Mouse** |
| Clonality | **Monoclonal** |
| Isotype | **IgG1** |
| Calculated MW | **27.8kDa KDa** |

**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.

## BDNF Antibody - 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.

## BDNF Antibody - Protein Information

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**Name** BDNF {ECO:0000303|PubMed:28397838, ECO:0000312|HGNC:HGNC:1033}

**Function**
Important signaling molecule that activates signaling cascades downstream of NTRK2 (PubMed:<a href="http://www.uniprot.org/citations/11152678" target="_blank">11152678</a>). 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.

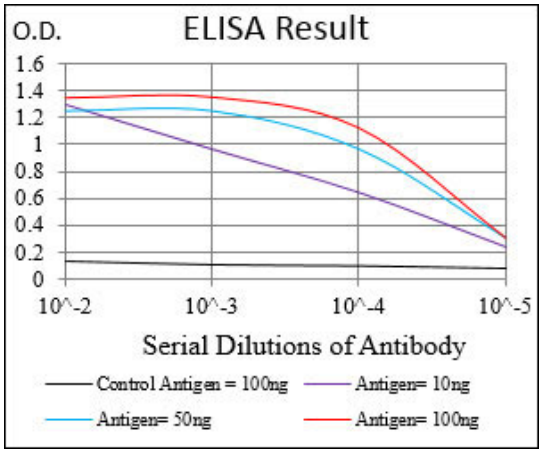
**Cellular Location**
Secreted

**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

## BDNF Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture



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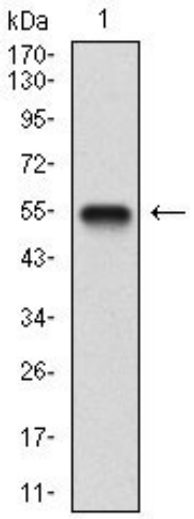


Figure 1: Western blot analysis using BDNF mAb against human BDNF (AA: 19-248) recombinant protein. (Expected MW is 51.7 kDa)

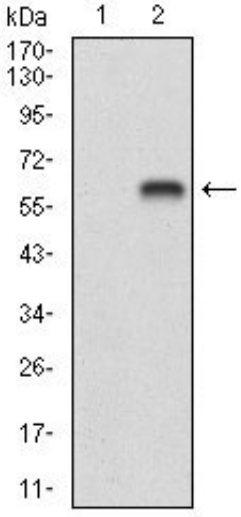


Figure 2: Western blot analysis using BDNF mAb against HEK293 (1) and BDNF (AA: 19-248)-hIgGFc transfected HEK293 (2) cell lysate.

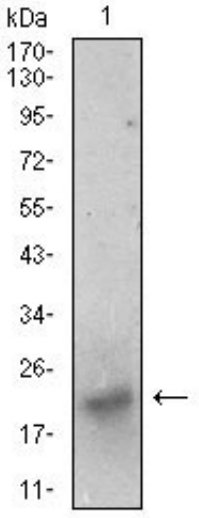


Figure 3: Western blot analysis using BDNF mouse mAb against SK-N-SH (1) cell lysate.

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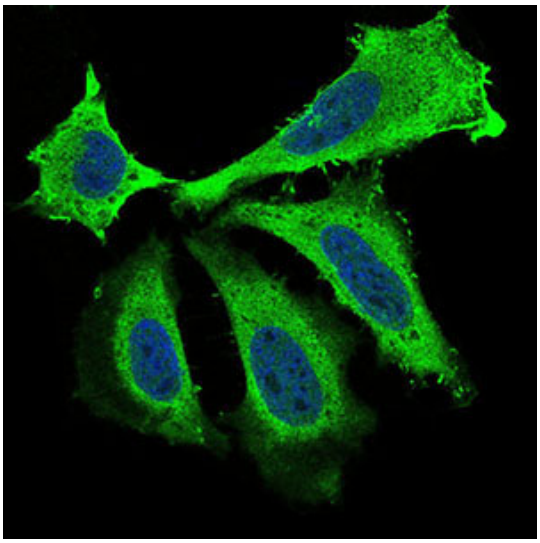

Figure 4: Immunofluorescence analysis of Hela cells using BDNF mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Secondary antibody from Fisher (Cat#: 35503)

## BDNF Antibody - References

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