

BDNF Antibody (CT)
Rabbit Polyclonal Antibody
Catalog # ABV11275**Specification**

BDNF Antibody (CT) - Product Information

Application	WB, IHC
Primary Accession	P23560
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	27818

BDNF Antibody (CT) - Additional Information**Gene ID 627**

Positive Control	Western blot: CEM cell line, IHC: human brain tissue, FACS: CEM cells, IF: NCI-H460 cells
Application & Usage	Western blot: ~1:1000, IHC: ~1:10-1:50, IF: ~1:10-1:50, FC: ~1:10-1:50.

Other Names

BDNF; Brain-derived neurotrophic factor; Abrineurin

Target/Specificity

BDNF

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

100 µl of antibody in PBS with 0.09% (W/V) sodium azide

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions**Precautions**

BDNF Antibody (CT) is for research use only and not for use in diagnostic or therapeutic procedures.

BDNF Antibody (CT) - 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

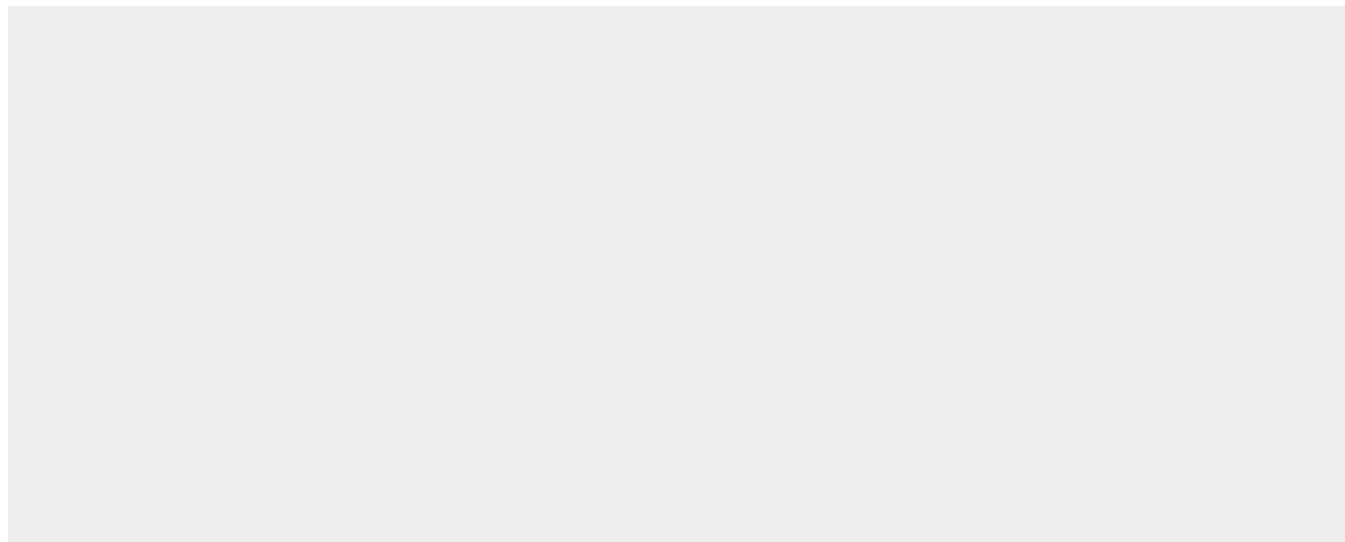
Detected in blood plasma and in saliva (at protein level) (PubMed:11152678, PubMed:19467646). Brain. Highly expressed in hippocampus, amygdala, cerebral cortex and cerebellum. Also expressed in heart, lung, skeletal muscle, testis, prostate and placenta

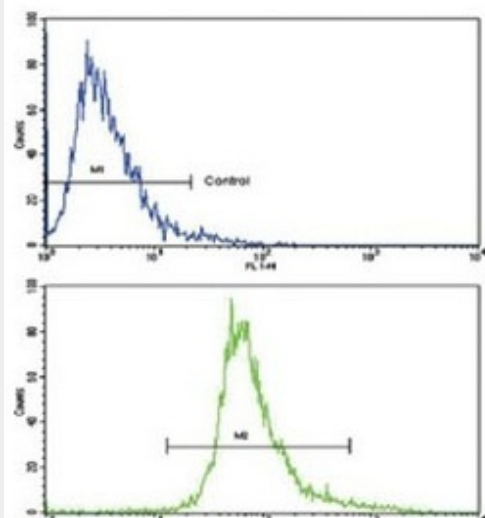
BDNF Antibody (CT) - Protocols

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

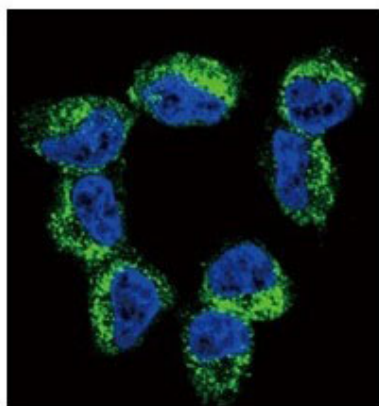
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

BDNF Antibody (CT) - Images

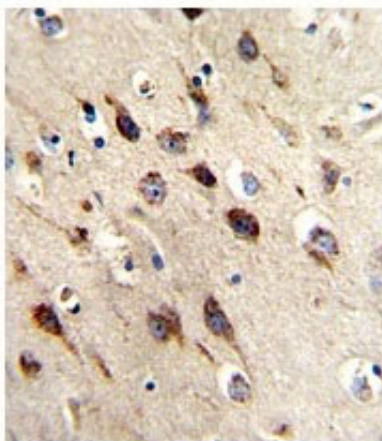




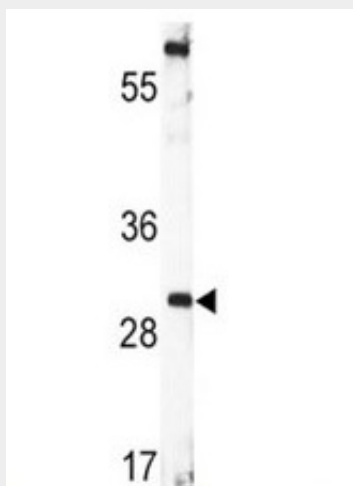
Flow cytometric analysis of CEM cells using BDNF Antibody (CT) (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



Confocal immunofluorescent analysis of BDNF Antibody (CT) with NCI-H460 cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).



Formalin-fixed and paraffin-embedded human brain tissue reacted with BDNF antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Western blot analysis with CEM cell line lysates (35 µg/lane). BDNF (arrow) was detected using the purified pAb.

BDNF Antibody (CT) - Background

Neurotrophins function to regulate naturally occurring cell death of neurons during development. The prototype neurotrophin is nerve growth factor (NGF), originally discovered in the 1950s as a soluble peptide promoting the survival of, and neurite outgrowth from, sympathetic ganglia. Three additional structurally homologous neurotrophic factors have been identified. These include brain-derived neurotrophic factor (BDNF), neurotrophin-3 (NT-3) and neurotrophin-4 (NT-4) (also designated NT-5). These various neurotrophins stimulate the *in vitro* survival of distinct, but partially overlapping, populations of neurons. The cell surface receptors through which neurotrophins mediate their activity have been identified. For instance, the Trk A receptor is the preferential receptor for NGF, but also binds NT-3 and NT-4. The Trk B receptor binds both BDNF and NT-4 equally well, and binds NT-3 to a lesser extent, while the Trk C receptor only binds NT-3.