

## Basic Information

<b>Product Name</b>	Anti-BDNF Antibody	
<b>Gene Name</b>	BDNF	
<b>Source</b>	Rabbit	
<b>Isotype</b>	IgG	
<b>Species Reactivity</b>	human, mouse, rat	
<b>Tested Application</b>	WB, IHC, IHC-F, ICC, FCM	
<b>Contents</b>	500 ug/ml antibody with PBS , 0.02% NaN <sub>3</sub> , 1 mg BSA and 50% glycerol.	
<b>Immunogen</b>	E.coli-derived human BDNF recombinant protein (Position: H129-R247). Human BDNF shares 100% amino acid (aa) sequence identity with both mouse and rat BDNF.	
<b>concentration</b>	500 ug/ml	
<b>Purification</b>	Immunogen affinity purified.	
<b>Observed MW</b>	28KD	
<b>Dilution Ratios</b>	Western blot(WB):	1:500-2000
	Immunohistochemistry in paraffin section (IHC):	1:50-400
	Immunohistochemistry in frozen section (IHC-F):	1:50-400
	Immunocytochemistry:	1:50-400
	Flow cytometry (FCM):	1-3 $\mu$ g/1x10 <sup>6</sup> cells
	(Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

## Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

## Background Information

Brain-derived neurotrophic factor, also known as BDNF, is a secreted protein that, in humans, is encoded by the BDNF gene. BDNF is a member of the neurotrophin family of growth factors, which are related to the canonical nerve growth factor. It is mapped to 11p14.1. BDNF is a prosurvival factor induced by cortical neurons that is necessary for survival of striatal neurons in the brain. It is expressed within peripheral ganglia and is not restricted to neuronal target fields. BDNF has been purified and shown to reduce the amount of naturally occurring neuronal cell death in portions of the peripheral nervous system.

## Reference

Anti-BDNF Antibody被引用在5文献中。

## Selected Validation Data

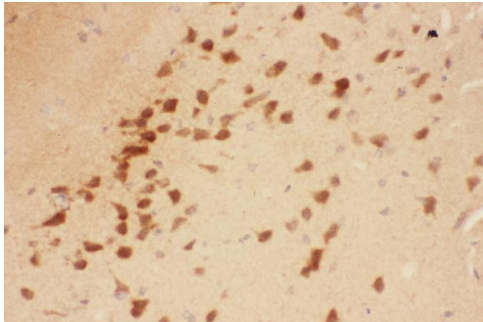


Figure 1. IHC analysis of BDNF using anti-BDNF antibody (PB9075). BDNF was detected in paraffin-embedded section of Rat Brain Tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1 $\mu$ g/ml rabbit anti-BDNF Antibody (PB9075) overnight at 4 $^{\circ}$ C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 $^{\circ}$ C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC)(Catalog # SA1022) with DAB as the chromogen.



Figure 3. Western blot analysis of BDNF using anti-BDNF antibody (PB9075). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: Rat Brain Tissue Lysate After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-BDNF antigen affinity purified polyclonal antibody (Catalog # PB9075) at 0.5  $\mu\text{g}/\text{mL}$  overnight at 4°C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for BDNF at approximately 38KD. The expected band size for BDNF is at 28KD.

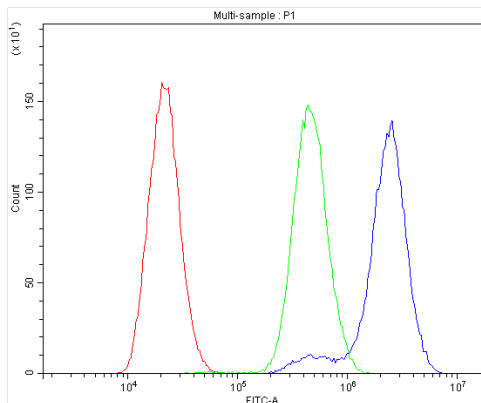


Figure 4. Flow Cytometry analysis of U-87 cells using anti-BDNF antibody (PB9075). Overlay histogram showing U-87 cells stained with PB9075 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-BDNF Antibody (PB9075,  $1\mu\text{g}/1\times 10^6$  cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127,  $5-10\mu\text{g}/1\times 10^6$  cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG ( $1\mu\text{g}/1\times 10^6$ ) used under the same conditions. Unlabelled sample (Red line) was also used as a control.