

APA011Hu01 10µg
Active Brain Derived Neurotrophic Factor (BDNF)
Organism Species: *Homo sapiens* (Human)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1st Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.

Host: E.coli

Residues: His129~Arg247

Tags: N-terminal His-tag

Purity: >95%

Endotoxin Level: <1.0EU per 1µg (determined by the LAL method).

Buffer Formulation: PBS, pH7.4, containing 5% Trehalose.

Original Concentration: 100µg/mL

Applications: Cell culture; Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

Predicted isoelectric point: 9.6

Predicted Molecular Mass: 16.7kDa

Accurate Molecular Mass: 18kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in ddH₂O to a concentration of 0.1-1.0 mg/mL. Do not vortex.

[STORAGE AND STABILITY]

Storage: Avoid repeated freeze/thaw cycles.

Store at 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

Stability Test: The thermal stability is described by the loss rate. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. The loss rate is less than 5% within the expiration date under appropriate storage condition.

[SEQUENCE]

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HS DPARRGELSV CDSISEWTA  
ADKKTAVDMS GGTVTVLEKV PVSKGQLKQY FYETKCNPMG YKEGCRGID  
KRHWNSQCRT TQSYVRALTM DSKKRIGWRF IRIDTSCVCT LTIKRGR
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[ACTIVITY]

Brain-derived neurotrophic factor, also known as BDNF, is a member of the neurotrophin family of growth factors, which are related to the canonical Nerve Growth Factor. BDNF acts on certain neurons of the central nervous system and the peripheral nervous system, helping to support the survival of existing neurons, and encourage the growth and differentiation of new neurons and synapses. Besides, Sortilin 1 (SORT1) has been identified as an interactor of BDNF, thus a binding ELISA assay was conducted to detect the interaction of recombinant human BDNF and recombinant human SORT1. Briefly, SORT1 were diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100µl were then transferred to BDNF-coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-SORT1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37 °C. Finally, add 50µL stop solution to the wells and read at 450/630nm immediately. The binding activity of of BDNF and SORT1 was shown in Figure 1, and this effect was in a dose dependent manner.

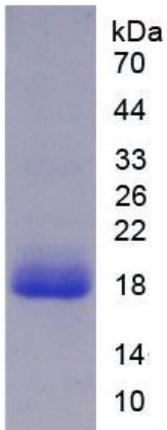


Figure 3. SDS-PAGE

Sample: Active recombinant BDNF, Human

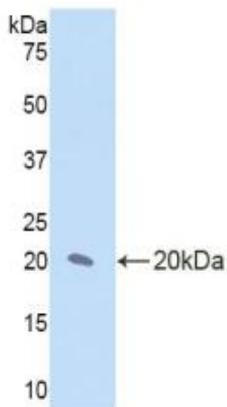


Figure 4. Western Blot

Sample: Recombinant BDNF, Human;

Antibody: Rabbit Anti-Human BDNF Ab (PAA011Hu01)

[IMPORTANT NOTE]

The kit is designed for research use only, we will not be responsible for any issue if the kit was used in clinical diagnostic or any other procedures.