APA043Mu01 100μg
Active Glial Cell Line Derived Neurotrophic Factor (GDNF)
Organism Species: *Mus musculus* (Mouse)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

1th Edition (Apr, 2016)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Asp79~Leu217
Tags: N-terminal His-tag
Purity: >98%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: 20mM Tris, 150mM NaCl, pH8.0, containing 0.05% sarcosyl and 5% trehalose.
Applications: Cell culture; Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 8.9
Predicted Molecular Mass: 16.9kDa
Accurate Molecular Mass: 19kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 20mM Tris, 150mM NaCl (pH8.0) 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 37ºC 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]

DS NMPEDYPDQF DDVMDFIQAT
IKRLKRSPDK QAAALPRRER NRQAAAASPE NSRGKGRRGQ RGKNRGCVLT
AIHLNVTDLG LGYETKEELI FRYCSGSCES AETMYDKILK NLSRSRRLTS
DKVGQACCRP VAFDDDL

[ACTIVITY]

Glial cell-derived neurotrophic factor (GDNF) is a small protein that potently promotes the survival of many types of neurons. This protein was shown to promote the survival and differentiation of dopaminergic neurons in culture, and was able to prevent apoptosis of motor neurons induced by axotomy. The most prominent feature of GDNF is its ability to support the survival of dopaminergic and motorneurons. Besides, Glial Cell Line Derived Neurotrophic Factor Receptor Alpha 2 (GFRa2) has been identified as an interactor of GDNF, thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse GDNF and recombinant mouse GFRa2. Briefly, GDNF were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to GFRa2-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-GDNF 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℃. Finally, add 50μL stop solution to the wells and read at 450nm immediately. The binding activity of GDNF and GFRa2 was shown in Figure 1, and this effect was in a dose dependent manner.

Figure 1. The binding activity of GDNF with GFRa2.

[IDENTIFICATION]

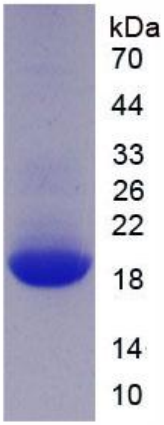

Figure 2. SDS-PAGE

Sample: Active recombinant GDNF, Mouse

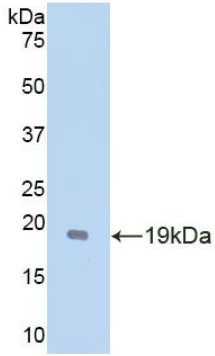

Figure 3. Western Blot

Sample: Recombinant GDNF, Mouse;

Antibody: Rabbit Anti-Mouse GDNF Ab (PAA043Mu01)

[IMPORTANT NOTE]

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