APB166Mu01 100μg
Active VGF Nerve Growth Factor Inducible (VGF)
Organism Species: *Mus musculus (Mouse)*
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: Met1~Pro617
Tags: N-terminal His and GST Tag
Purity: >80%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% SKL, 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: 4.0
Predicted Molecular Mass: 98.0kDa
Accurate Molecular Mass: 98kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in 10mM PBS (pH7.4) 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]

MKTFTLPASV LFCFLLLIQG LGAAPPGRPD VFPPPLSSEH NGQVAEDAVS
RPKDDGVPEV RAARNPEPQD QGELFQGVDP RALASVLLQA LDRPASPPSV
PGGSQQGTPE EAAEALLTES VRSQTHSLPA PEIQAPAVAP PRPQTQDRDP
EEDDRSEELE ALASLLQELR DFSPSNAKRQ QETAAAETET RTHTLTRVNL
ESPGPERVWR ASWGEFQARV PERAPLPPPV PSQFQARMSE SAPLPETHQF
GEGVSSPKTH LGETLTPLSK AYQSLGGPFP KVRRLEGSFL GGSEAGERLL
QQGLAQVEAG RRQAEATRQA AAQEERLADL ASDLLLQYLL QGGARQRDLG
GRELQETQQE RENEREEEAE QERRGGGEDD VGEEDEEAAE AEAEAEEAER
ARQNALLFAE EEDGEAGAED KRSQEEAPGH RRKDAEGAEE GGEEDDDDEE
MDPQTIDSLI ELSTKLHLPA DDVVSIIEEV EEKRKRKKNA PPEPVPPPRA
APAPTHVRSP QPPPPAPARD ELPDWNEVLP PWDREEDEVF PPGPYHPFPN
YIRPRTLQPP ASSRRRHFHH ALPPARHHPD LEAQARRAQE EADAEERRLQ
EQEELENYIE HVLLHRP

[ACTIVITY]

Neurosecretory protein VGF is specifically expressed in a subpopulation of neuroendocrine cells, and is upregulated by nerve growth factor. The protein shares similarities with the secretogranin/chromogranin family, however, its exact function is not known. Besides, Early Growth Response Protein 1 (EGR1) has been identified as an interactor of VGF, thus a binding ELISA assay was conducted to detect the interaction of recombinant mouse VGF and recombinant mouse EGR1. Briefly, EGR1 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100μl were then transferred to VGF-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti- EGR1 pAb, then aspirated and washed 3 times. After incubation with

HRP labelled secondary antibody for 1h at 37℃, wells were aspirated and washed 5 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 450/630nm immediately. The binding activity of VGF and EGR1 was shown in Figure 1, the ED50 for this effect is 0.473 ug/mL.

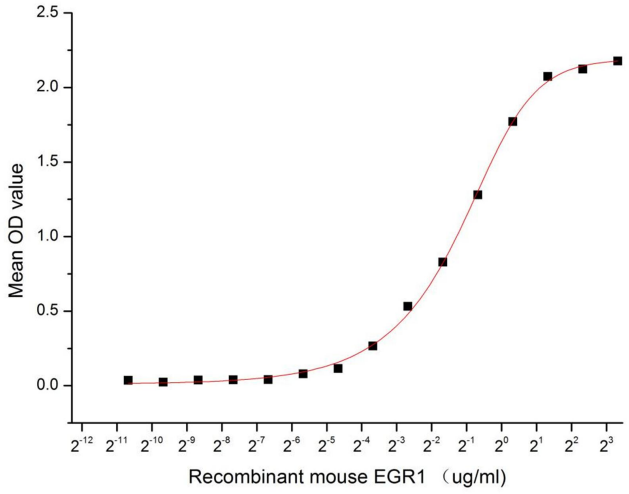

Figure 1. The binding activity of VGF with EGR1

[IDENTIFICATION]

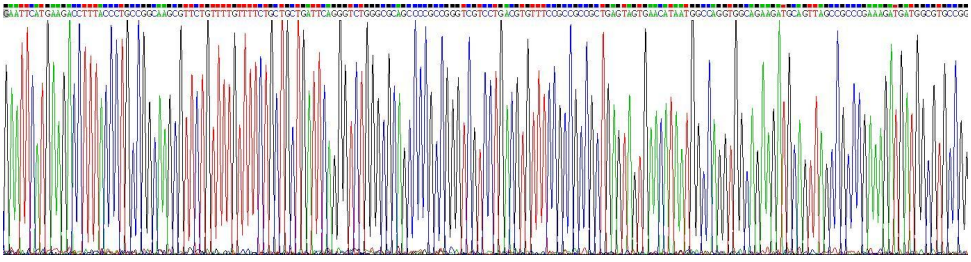

Figure 2. Gene Sequencing (extract)

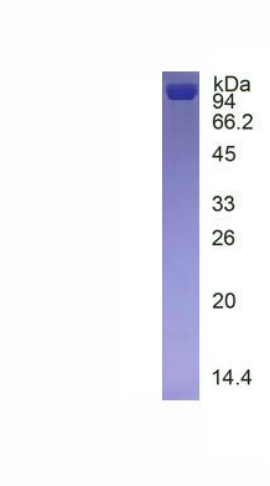

Figure 3. SDS-PAGE

Sample: Active recombinant VGF, Mouse

[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.