

APC111Hu01 100µg

Active Active Growth Differentiation Factor 6 (GDF6)

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: Thr336~Arg455

Tags: N-terminal His-tag

Purity: >95%

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: 7.2

Predicted Molecular Mass: 14.8kDa

Accurate Molecular Mass: 16kDa 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 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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TAFAS RHGKRHGKKS  
RLRCSKKPLH VNFKELGWDD WIIAPLEYEA YHCEGVCDFF LRSHLEPTNH  
AIIQTLMNSM DPGSTPPSCC VPTKLTPI SI LYIDAGNNVV YKQYEDMVVE  
SCGCR
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[ACTIVITY]

Growth differentiation factor 6 (GDF6) is a protein, belongs to the transforming growth factor beta superfamily. It is a regulatory protein associated with growth and differentiation of developing embryos. GDF6 has also been shown to play an important role in the patterning of the epidermis and bone and joint formation. GDF6 interacts with bone morphogenetic proteins (BMPs) to form heterodimers that may work to regulate neural induction and patterning in developing embryos. Besides, Bone Morphogenetic Protein Receptor II (BMPR II) has been identified as an interactor of GDF6, thus a binding ELISA assay was conducted to detect the interaction of recombinant human GDF6 and recombinant human BMPR II. Briefly, GDF6 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100uL were then transferred to BMPR II -coated microtiter wells and incubated for 2h at 37°C. Wells were washed with PBST and incubated for 1h with anti-GDF6 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 450nm immediately. The binding activity of GDF6 and BMPR II was shown in Figure 1, and this effect was in a dose dependent manner.

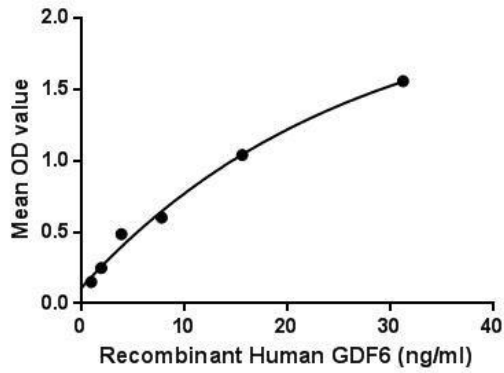


Figure 1. The binding activity of GDF6 with BMPR II.

[IDENTIFICATION]

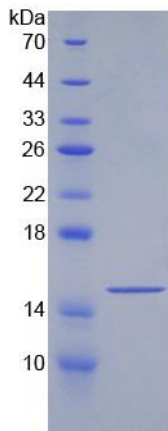


Figure 2. SDS-PAGE

Sample: Active recombinant GDF6, Human

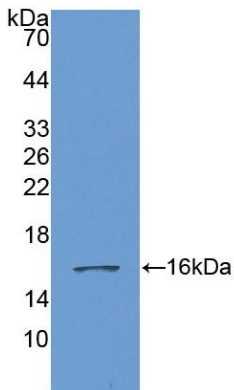


Figure 3. Western Blot

Sample: Recombinant GDF6, Human;

Antibody: Rabbit Anti-Human GDF6 Ab (PAC111Hu01)

[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.