

APC918Ra01 100µg
Active Fibroblast Growth Factor 21 (FGF21)
Organism Species: *Rattus norvegicus* (Rat)
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: Gly25~Ser208

Tags: N-terminal His-tag

Purity: >92%

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: 5.6

Predicted Molecular Mass: 23.8kDa

Accurate Molecular Mass: 27kDa as determined by SDS-PAGE reducing conditions.

Phenomenon explanation:

The possible reasons that the actual band size differs from the predicted are as follows:

1. Splice variants: Alternative splicing may create different sized proteins from the same gene.
2. Relative charge: The composition of amino acids may affects the charge of the protein.
3. Post-translational modification: Phosphorylation, glycosylation, methylation etc.
4. Post-translation cleavage: Many proteins are synthesized as pro-proteins, and then cleaved to give the active form.
5. Polymerization of the target protein: Dimerization, multimerization etc.

[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]

```
GVCEAY PISDSSPLLQ FGGQVRQRYL  
YTDDQDTEA HLEIREDGTV VGTARSPES LLELKALKPG VIQILGVKAS  
RFLCQQPDGT LYGSPHFDPE ACSFRELLLK DGYNVYQSEA HGLPLRLPQK  
DSQDPATRGP VRFLPMPGLP HEPQEQPGLV PPEPPDVGSS DPLSMVEPLQ  
GRSPSYAS
```

[ACTIVITY]

Fibroblast growth factor 21 (FGF21) is a member of the fibroblast growth factor (FGF) family and specifically a member of the endocrine subfamily which includes FGF23 and FGF15/19. FGF family members possess broad mitogenic and cell survival activities and are involved in a variety of biological processes including embryonic development, cell growth, morphogenesis, tissue repair, tumor growth and invasion. FGF21 action through one of the FGF21 receptors thus requires interaction with a co-receptor, designated β -klotho. Besides, Fibroblast Growth Factor Receptor 1 (FGFR1) has been identified as an interactor of FGF21, thus a binding ELISA assay was conducted to detect the interaction of recombinant rat

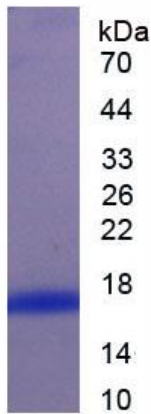


Figure 3. SDS-PAGE

Sample: Active recombinant FGF21, Rat

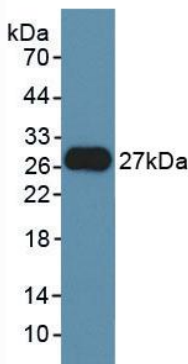


Figure 4. Western Blot

Sample: Recombinant FGF21, Rat;

Antibody: Rabbit Anti-Rat FGF21 Ab (PAC918Ra01)

[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.