APD017Ra01 100μg
Active Follicle Stimulating Hormone Beta (FSHb)
Organism Species: *Rattus norvegicus (Rat)*
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

13th Edition (Revised in Aug, 2023)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Ser21~Glu130
Tags: N-terminal His-tag
Purity: >80%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% Sarcosyl, 5%Trehalose .
Original Concentration: 200μg/mL
Applications: Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 6.3
Predicted Molecular Mass: 16.2kDa
Accurate Molecular Mass: 16kDa 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 2-8ºC for one month.
Aliquot and store at -80ºC 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]

SCELTNITIS VEKEECRFCI SINTTWCEGY
CYTRDLVYKD PARPNTQKVC TFKELVYETI RLPGCARHSD SLYTYPVATE
CHCGKCDSDS TDCTVRGLGP SYCSFGEMKE

[ACTIVITY]

Follicle Stimulating Hormone Beta (FSHb) is a subunit of Follicle - Stimulating Hormone (FSH). As a key component, FSHb confers the hormone's specificity. Along with the the alpha chain CGA, it forms FSH. In the body, FSH plays a crucial role in the reproductive system. In females, it stimulates follicular growth and maturation in the ovaries. In males, it is involved in spermatogenesis in the testes. Mutations in the FSHb gene can lead to reproductive disorders.To detect the biological activity of FSHb a functional ELISA assay was conducted to detect the interaction of recombinant rat FSHb and recombinant mouse CGA. Briefly, FSHb was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to CGA-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-FSHb 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 50 μL stop solution to the wells and read at 450/630nm immediately. The binding activity of recombinant recombinant rat FSHb and recombinant mouse CGA was shown in Figure 1, the EC50 for this effect is 0.112ug/mL.

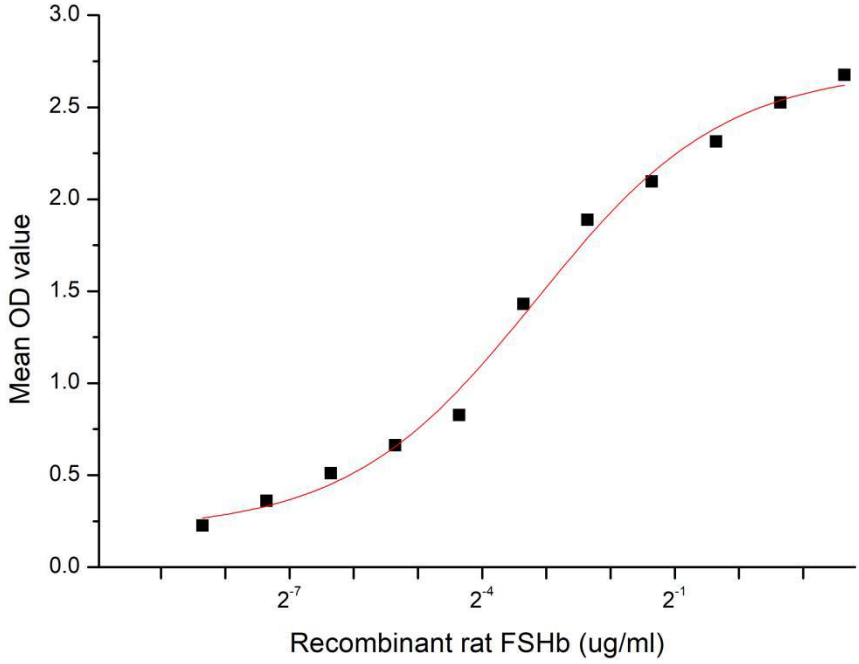

Figure 1. The binding activity of recombinant rat FSHb and recombinant mouse CGA

[IDENTIFICATION]

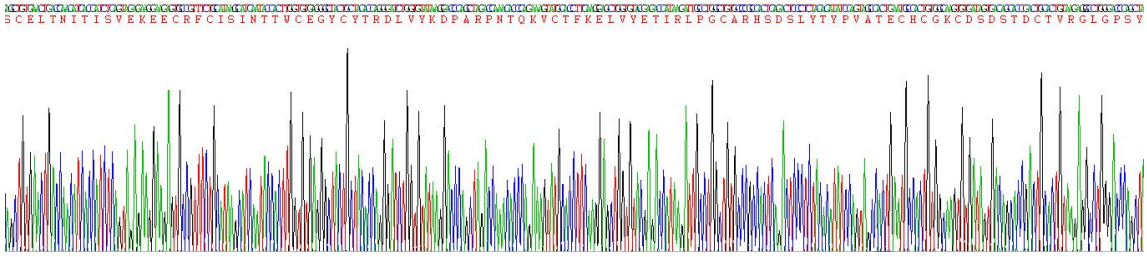

Figure 2. Gene Sequencing (extract)

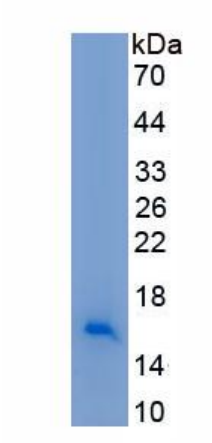

Figure 3. SDS-PAGE

Sample: Active recombinant FSHb, Rat

[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.