APB656Ra61 100μg
Active Trefoil Factor 3 (TFF3)
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: Eukaryotic expression.
Host: 293F cell
Residues: Gln23~Phe81
Tags: N-terminal His Tag and C-terminal Fc Region of Human IgG1
Purity: >90%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 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: 4.1
Predicted Molecular Mass: 37.6kDa
Accurate Molecular Mass: 40kDa 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]

QEFVGLSPSQCMVPANVRVDCGYPTVTSEQCNNRGCCFDSSIPNVPWCFKPLQETECTF

[ACTIVITY]

Trefoil Factor 3 (TFF3) is a small secretory protein primarily produced by gastrointestinal goblet cells, belonging to the trefoil factor family (TFF) characterized by a conserved trefoil domain. It plays crucial roles in mucosal protection, epithelial repair, and inflammation regulation by resisting protease degradation and promoting cell migration. TFF3 is highly expressed in the intestines and colon, where it stabilizes the mucus layer and facilitates wound healing. Additionally, TFF3 directly binds to FCGBP to form a heteromeric complex that enhances mucosal stability and repair.To detect the activity of recombinant TFF3, a functional ELISA assay was performed to evaluate the interaction between recombinant rat TFF3 and recombinant human FCGBP.Briefly, biotin-linked TFF3 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100μl were then transferred to FCGBP-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30min, then 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 450nm immediately. The binding activity of TFF3 and FCGBP was shown in Figure 1, the EC50 for this effect is 0.21μg/mL..

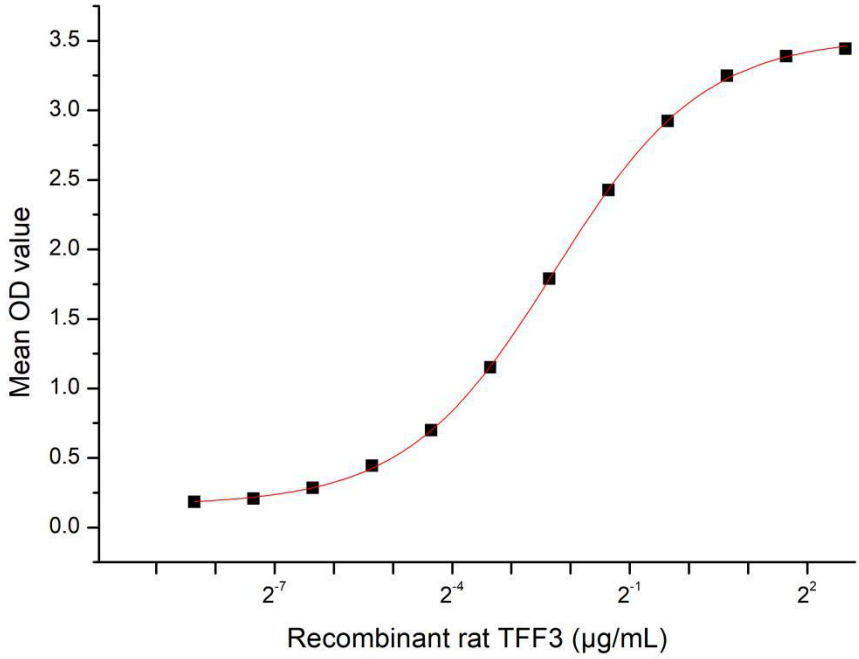

Figure 1. The binding activity of recombinant rat TFF3 and recombinant human FCGBP

[IDENTIFICATION]

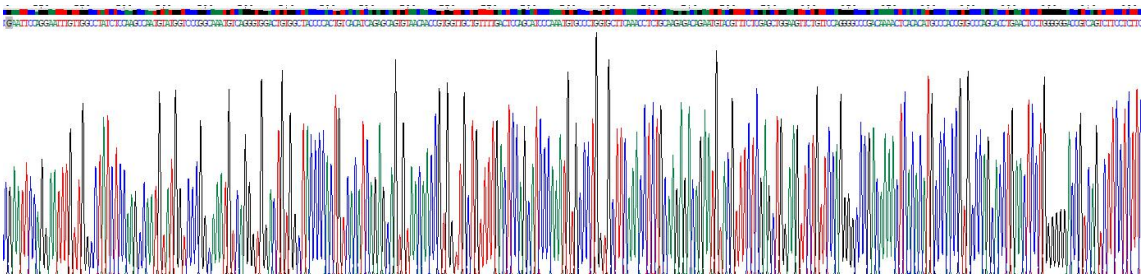

Figure 2. Gene Sequencing (extract)

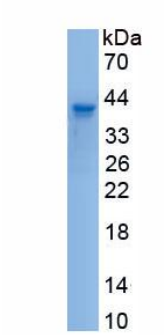

Figure 3. SDS-PAGE

Sample: Active recombinant TFF3, 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.