

APE675Hu01 100µg
Active Regenerating Islet Derived Protein 3 Alpha (REG3a)
Organism Species: *Homo sapiens* (Human)
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: Cys40~Asn164

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: 7.3

Predicted Molecular Mass: 14.9kDa

Accurate Molecular Mass: 15kDa 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 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]

CPKGSKAYGSHCYALFLSPKSWTDADLACQKRPSGNLVSVLGSAEGSFVSSLVKSIGNSYVWIG
LHDPTQGTEPNGEGWEWSSSDVMNYFAWERNPSTISSPGHCASLSRSTAFLRWKDYNCN

[ACTIVITY]

Regenerating Islet Derived Protein 3 Alpha (REG3a), also known as heptocarcinoma-intestine-pancreas (HIP) or pancreatic associated protein (PAP), is a member of the regenerating protein family. REG3a is expressed in islet beta cells, intestinal tract and pancreatic tissues and plays an important role in mucosal barrier maintenance, innate immunity, tissue regeneration and inflammatory response. Besides, Interleukin 22 (IL22) has been identified as an interactor of REG3a, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human REG3a and recombinant human IL22. Briefly, REG3a was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to IL22-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-REG3a pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37°C, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37°C. Finally, add 50 μ L stop solution to the wells and read at 450/630nm immediately. The binding activity of recombinant human REG3a and recombinant human IL22 was shown in Figure 1, the EC₅₀ for this effect is 0.11242 μ g/mL.

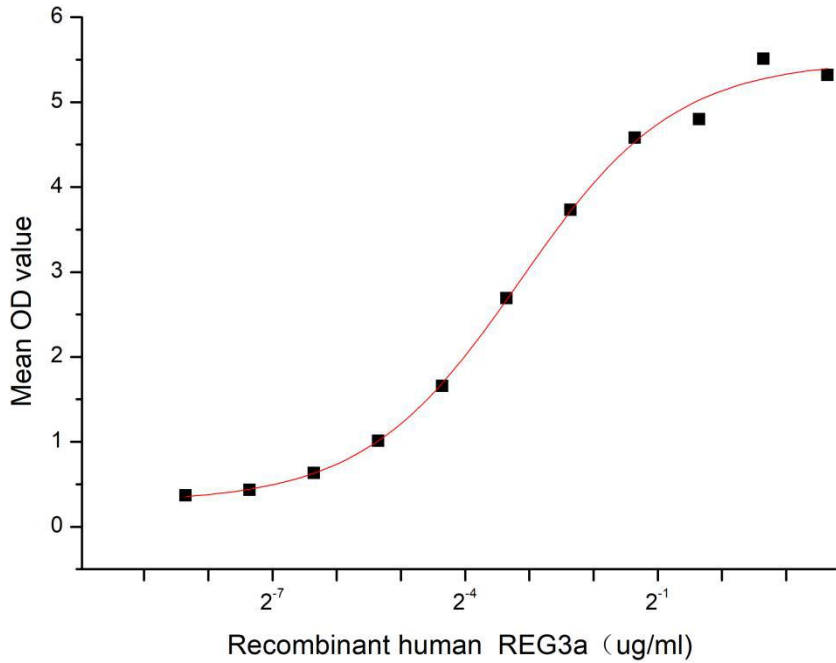


Figure 1. The binding activity of recombinant human REG3a and recombinant human IL22

[IDENTIFICATION]

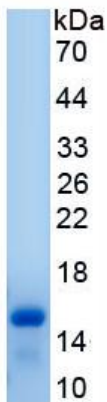


Figure 2. SDS-PAGE

Sample: Active recombinant REG3a, Human

[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.