

APA545Mu62 200µg

Active Immunoglobulin E (IgE)

Organism Species: *Mus musculus* (Mouse)

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: Asp198~Ser421

Tags: N-terminal His-tag

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: 7.9

Predicted Molecular Mass: 26.9kDa

Accurate Molecular Mass: 38kDa 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 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]

DHEPRGVITYLIPPSPLDLYQNGAPKLTCLVVDLESEKNVNVVTWNQEKKTSVSASQWYTKHHN
NATTSITSILPVVAKDWIEGYQCIVDHPDFPKPIVRSITKTPGQRSAPEVYVFPPEEESEDKRT
LTCLIQNFFPEDISVQWLGDGKLISNSQHSSTTPLKSNGSNQGFFFSRLEVAKTLWTQRKQFTC
QVIHEALQKPRKLEKTISTSLGNTSLRPS

[ACTIVITY]

Immunoglobulin E (IgE) is one of the members the 5 classes of immunoglobulins (IgM, IgG, IgD, IgA, IgE). It is produced by plasma cells and accounts for less than 0.01% of the total immunoglobulin. IgE has a unique chemical structure and various physiological functions, such as type I hypersensitivity reactions, parasitic infections, autoimmune processes, and venom protection. Besides, IgE binds to Receptor I For The Fc Region Of Immunoglobulin E (FcεRI) on mast cells and basophils via its Fc - region, triggering signal transduction, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human IgE and recombinant human FcεRI. Briefly, IgE was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to FcεRI-coated microtiter wells and incubated for 1h at 37°C. Wells were washed with PBST and incubated for 1h with anti-IgE 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 IgE and recombinant human Fc ϵ RI was shown in Figure 1, the EC₅₀ for this effect is 0.69 μ g/mL.

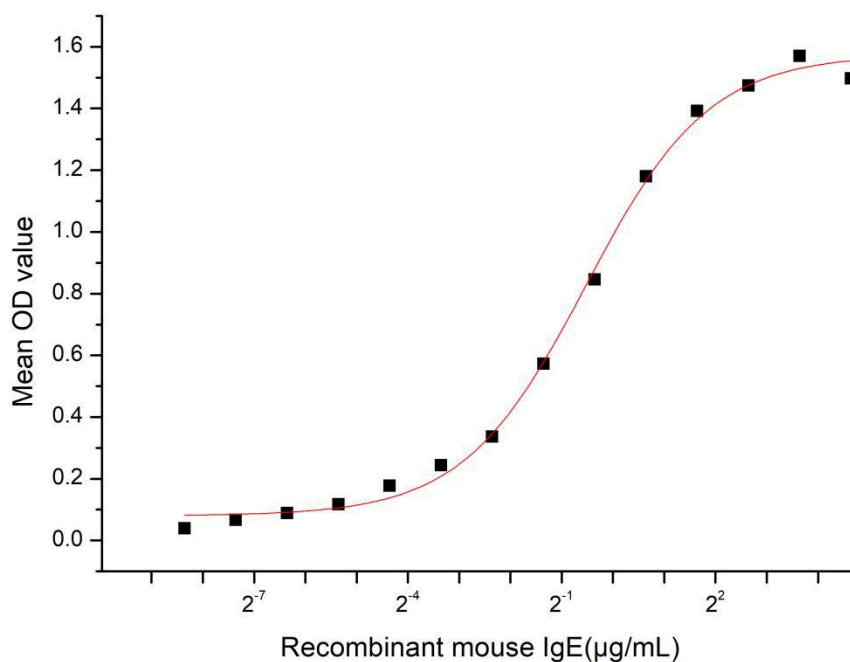
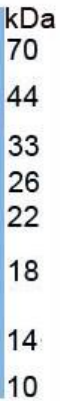


Figure 1. The binding activity of recombinant mouse IgE and mouse Fc ϵ RI

[illegible]

Sample: Active recombinant IgE, Mouse

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.