

**APB278Mu02 100µg**  
**Active Fc Fragment Of IgG Low Affinity IIIa Receptor (FcγR3A)**  
**Organism Species: *Mus musculus (Mouse)***  
***Instruction manual***

FOR RESEARCH USE ONLY  
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

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13th Edition (Revised in Aug, 2023)

## **[ PROPERTIES ]**

**Source:** Prokaryotic expression.

**Host:** *E. coli*

**Residues:** Leu5~Ile240

**Tags:** Two N-terminal Tags, His-tag and SUMO-tag

**Purity:** >90%

**Endotoxin Level:** <1.0EU per 1µg (determined by the LAL method).

**Buffer Formulation:** PBS, pH7.4, containing 0.01% SKL, 5%Trehalose .

**Original Concentration:** 200µg/mL

**Applications:** Cell culture; Activity Assays.

(May be suitable for use in other assays to be determined by the end user.)

**Predicted isoelectric point:** 7.0

**Predicted Molecular Mass:** 40.4kDa

**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 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** ]

```
LLPTAL VLTAFSGIQA GLQKAVVNL D PKWVRVLEED SVTLRCQGT F  
SPEDNSIKWF HNESLIPHQD ANYVIQSARV KDSGMYRCQT ALSTISDPVQ  
LEVHMGWLLL QTTKWL FQEG DPIHLRCHSW QNRPVRKV TY SQNGK GK KYF  
HENSELLIPK ATHNDSGSYF CRGLIGHNNK SSASFRISLG DPGSPSMFPP  
WHQITFCLLI GLLFAIDTVL YFSVRRGLQS PVADYEEP KI
```

## [ **ACTIVITY** ]

Fc receptor with low affinity for IgG (Fc gamma RIII, CD16) is encoded by two nearly identical genes, Fc gamma RIII-A and Fc gamma RIII-B, resulting in tissue-specific expression of alternative membrane-anchored isoforms. FcγR3A is expressed in almost all white blood cells and is primarily responsible for the ADCC action of NK cells and the clearance of antibody-antigen immune complexes by macrophages. FcγR3B is mainly expressed in neutrophils and can stimulate the release of superoxide in neutrophils. A functional binding ELISA assay was conducted to detect the interaction of recombinant mouse FcγR3A and mouse IgG. Briefly, biotin-linked FcγR3A were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to IgG-coated microtiter wells and incubated for 1h at 37 °C . 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 °C . Finally, add 50 μl stop solution to the wells and read at 450 nm immediately. The binding activity of recombinant mouse FcγR3A and mouse IgG was shown in Figure 1, the EC50 for this effect is 0.26 ug/mL.

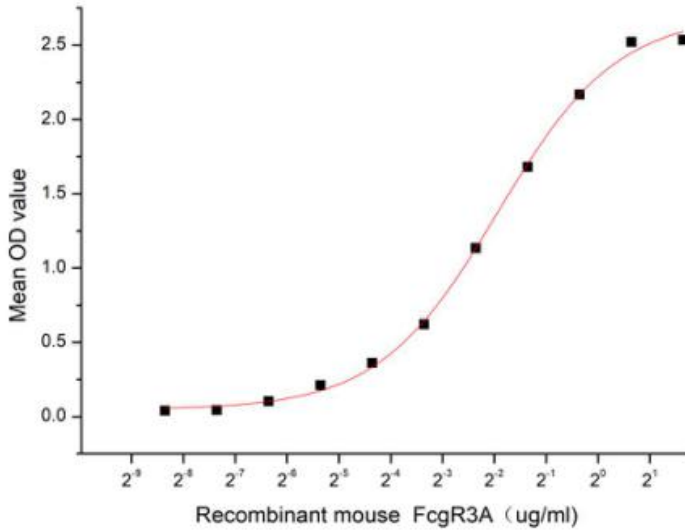


Figure 1. The binding activity of recombinant mouse FcγR3A and mouse IgG

## [ IDENTIFICATION ]

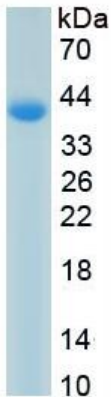


Figure 2. SDS-PAGE

Sample: Active recombinant FcγR3A, Mouse

## [ 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.