

APD188Hu01 10µg
Active Glucosidase Alpha, Neutral AB (GaNAB)
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: Leu679~Arg944

Tags: N-terminal His-tag

Purity: >90%

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

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

Applications: Activity Assays.

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

Predicted isoelectric point: 6.2

Predicted Molecular Mass: 33.9kDa

Accurate Molecular Mass: 34kDa 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]

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LD TGRREPWLLP SQHNDIIRDA
LGQRYSLLPF WYTLLYQAHR EGIPVMRPLW VQYPQDVTF NIDDQYLLGD
ALLVHPVSDS GAHGVQVYLP GQGEVWYDIQ SYQKHHGPQT LYLPVTLSSI
PVFQRGGTIV PRWMRVRRSS ECMKDDPITL FVALSPQGT A QGELFLDDGH
TFNYQTRQEF LLRRFSFSGN TLVSSSADPE GHFETPIWIE RVVIIGAGKP
AAVVLQTKGS PESRLSFQHD PETSVLVLRK PGINVASDWS IHLR
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[ACTIVITY]

Glucosidase Alpha, Neutral AB (GaNAB) is an enzyme in the glycoside hydrolase family. It hydrolyzes alpha - glucosidic bonds, participates in carbohydrate metabolism, and is involved in endoplasmic reticulum quality control. GaNAB binds to Heat Shock 70kDa Protein 5 (HSPA5), collaborating to ensure proper glycoprotein folding and maintain cellular protein homeostasis. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human GaNAB and recombinant mouse HSPA5. Briefly, biotin-linked GaNAB were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 μ l were then transferred to HSPA5-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 μ l stop solution to the wells and read at 450nm immediately. The binding activity of GaNAB and HSPA5 was shown in Figure 1, the EC₅₀ for this effect is 3.21ug/mL.

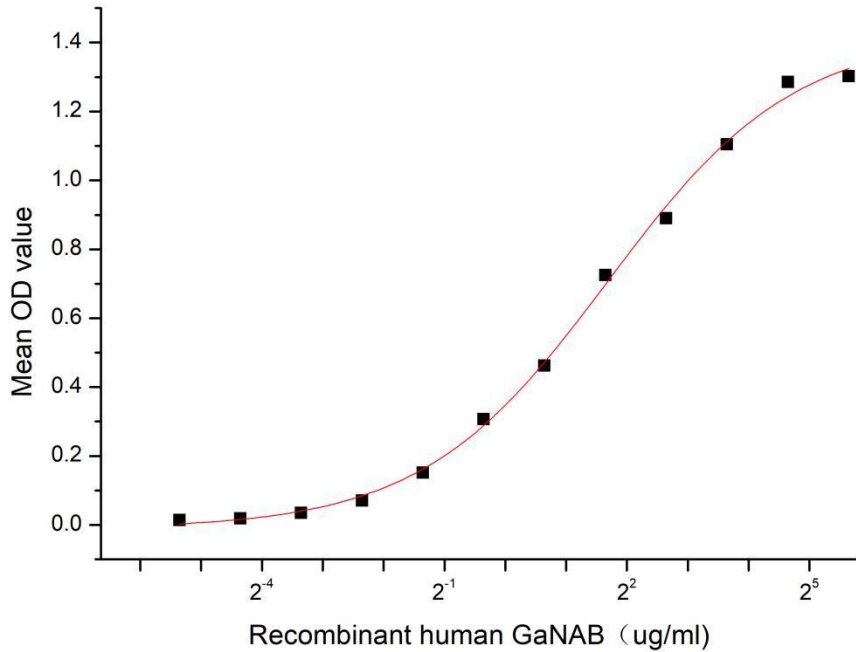
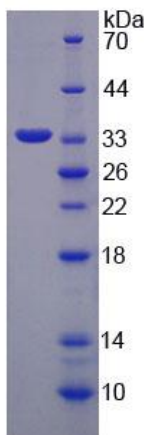


Figure 1. The binding activity of recombinant human GaNAB and recombinant mouse HSPA5

[IDENTIFICATION]



Sample: Active recombinant GaNAB, 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.