APL231Hu02 100μg
Active Alpha-2-Glycoprotein 1, Zinc Binding (aZGP1)
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: Asn148~Ser298
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 .
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: 6.6
Predicted Molecular Mass: 23.8kDa
Accurate Molecular Mass: 28kDa 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 2-8ºC for one month.
Aliquot and store at -80ºC 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]

NKE
IPAWVPFDPA AQITKQKWEA EPVYVQRAKA YLEEECPATL RKYLKYSKNI
LDRQDPPSVV VTSHQAPGEK KKLKCLAYDF YPGKIDVHWT RAGEVQEPEL
RGDVLHNGNG TYQSWVVVAV PPQDTAPYSC HVQHSSLAQP LVVPWEAS

[ACTIVITY]

Alpha-2-Glycoprotein 1, Zinc-Binding (aZGP1), also known as zinc-α2-glycoprotein (ZAG), is a soluble protein belonging to the major histocompatibility complex (MHC) class I family. It is widely expressed in various bodily fluids and epithelial tissues. First identified in human plasma, aZGP1 exhibits multifunctional properties—most notably regulating lipid metabolism by stimulating lipolysis in adipocytes. As an important adipokine, it promotes fat breakdown and weight loss.

Besides,Retinol Binding Protein 4 (RBP4) has been identified as an interactor of aZGP1, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human aZGP1 and recombinant bovine RBP4. Briefly, aZGP1 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 µl were then transferred to RBP4-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-aZGP1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody for 1h at 37℃, wells were aspirated and washed 5 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50 µL stop solution to the wells and read at 450/630nm immediately. The binding activity of recombinant human aZGP1 and recombinant bovine RBP4 was shown in Figure 1, the EC50 for this effect is 1.06µg/mL.

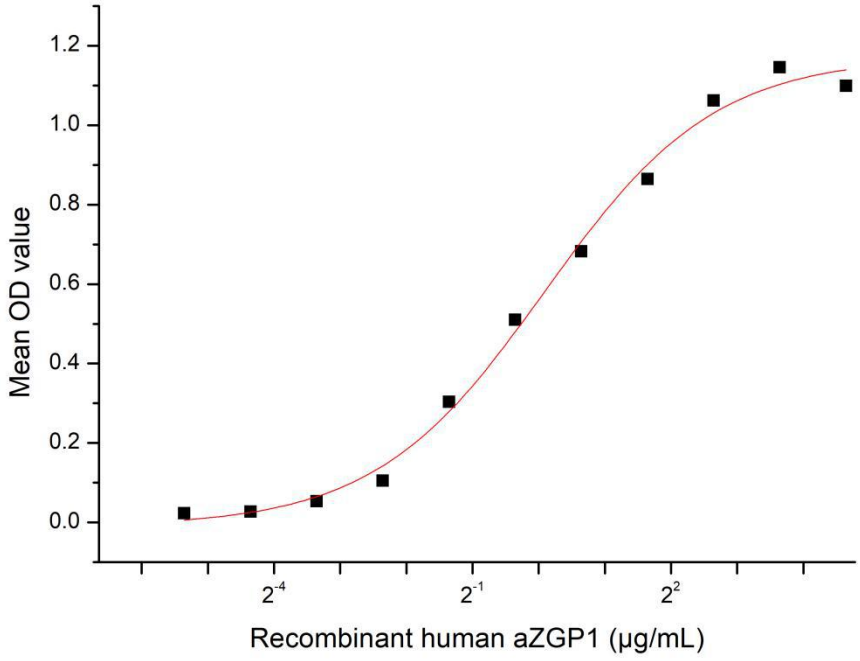

Figure 1. The binding activity of recombinant human aZGP1 and bovine RBP4

[IDENTIFICATION]

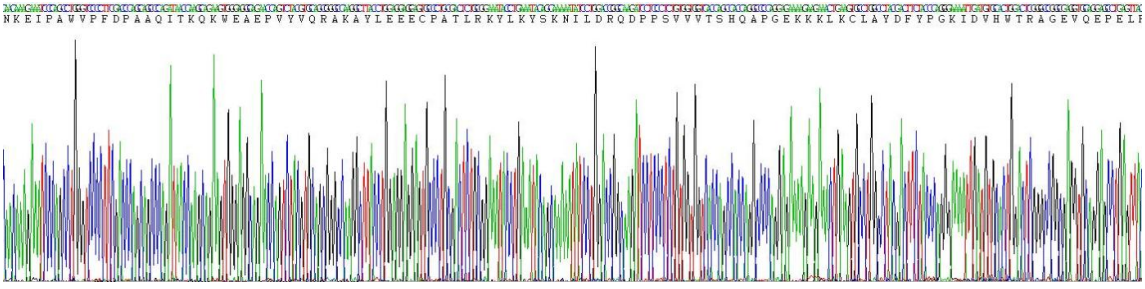

Figure 2. Gene Sequencing (extract)

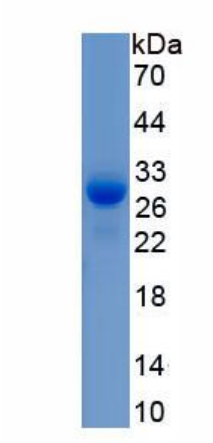

Figure 3. SDS-PAGE

Sample: Active recombinant aZGP1, 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.