APA674Hu01 50μg
Active CCAAT/Enhancer Binding Protein Gamma (CEBPg)
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: Met1~Gln150
Tags: N-terminal His-tag
Purity: >95%
Endotoxin Level: <1.0EU per 1μg (determined by the LAL method).
Buffer Formulation: PBS, pH7.4, containing 0.01% Sarcosyl, 5%Trehalose .
Original Concentration: 1000μg/mL
Applications: Activity Assays.
(May be suitable for use in other assays to be determined by the end user.)
Predicted isoelectric point: 9.9
Predicted Molecular Mass: 20.1kDa
Accurate Molecular Mass: 22kDa as determined by SDS-PAGE reducing conditions.

[USAGE]

Reconstitute in ddH_2O to a concentration of 0.5-1.0 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]

MSKISQQNST PGVNGISVIH TQAHASGLQQ VPQLVPAGPG GGGKAVAPSK QSKKSSPMDR NSDEYRQRRE RNNMAVKKSR LKSKQKAQDT LQRVNQLKEE NERLEAKIKL LTKELSVLKD LFLEHAHNLA DNVQSISTEN TTADGDNAGQ

[ACTIVITY]

CCAAT/Enhancer Binding Protein Gamma (CEBPg) is a transcription factor belonging to the bZIP family, widely expressed across human tissues. It plays a crucial role in regulating immune and inflammatory responses by binding to C/EBP regulatory elements in target gene promoters. CEBPg modulates granulopoiesis, acute-phase reactions, and cytokine production, often acting redundantly or synergistically with other C/EBP family members. Dysregulation of CEBPg is linked to autoimmune diseases and hematological malignancies, highlighting its importance in maintaining immune homeostasis.Human CEBPg forms heterodimers with human ATF4 to regulate stress-responsive gene expression.Briefly, biotin-linked CEBPg were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100µl were then transferred to ATF4-coated microtiter wells and incubated for 1h at 37℃. 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℃. Finally, add 50µl stop solution to the wells and read at 450nm immediately. The binding activity of human CEBPg and human ATF4 was shown in Figure 1, the EC50 for this effect is 0.271µg/mL.

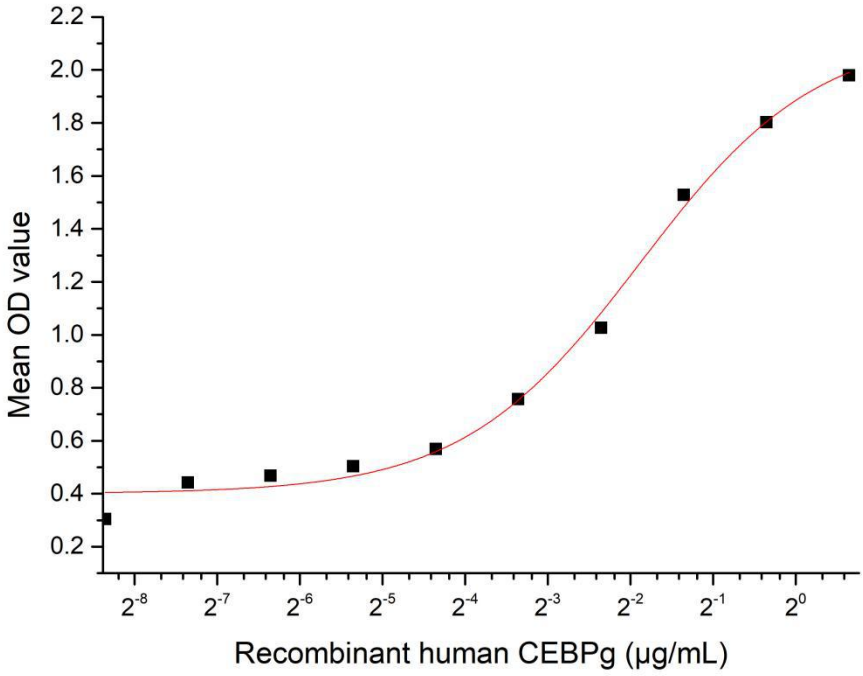

Figure 1. The binding activity of human CEBPg and human ATF4

[IDENTIFICATION]

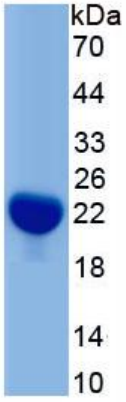

Figure 2. SDS-PAGE

Sample: Active recombinant CEBPg, 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.