APB608Hu01 100μg
Active Glucocorticoid Receptor (GR)
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: Val41~Tyr184
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% 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: 6.2
Predicted Molecular Mass: 16.4kDa
Accurate Molecular Mass: 14kDa 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]

VSASSPSLAV
ASQSDSKQRR LLVDFPKGSV SNAQQPDLSK AVSLSMGLYM GETETKVMGN
DLGFPQQGQI SLSSGETDLK LLEESIANLN RSTSVPENPK SSASTAVSAA
PTEKEFPKTH SDVSSEQQHL KGQTGTNGGN VKLY

[ACTIVITY]

Glucocorticoid Receptor (GR) is a member of the steroid receptor superfamily, which includes receptors for other steroid hormones such as estrogens, progestogens, androgens and mineralocorticoids. GR is widely distributed in various types of human cells, especially in liver, muscle, adipose tissue, lung, brain and other organs. GR plays a role in signaling within cells. When glucocorticoids enter cells and bind to GR, GR undergoes conformational changes that activate its transcriptional activity. It has been identified that the binding of Heat Shock 70kDa Protein 4 (HSPA4) to GR plays a key role in glucocorticoid signaling, which not only participates in the stabilization and activation of receptors, but also may affect the effect of drugs. Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human GR and recombinant human HSPA4. Briefly, GR was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to HSPA4-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-GR 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 450/630 nm immediately. The binding activity of recombinant human GR and recombinant

human HSPA4 was shown in Figure 1, the EC50 for this effect is 5.1 ug/mL.

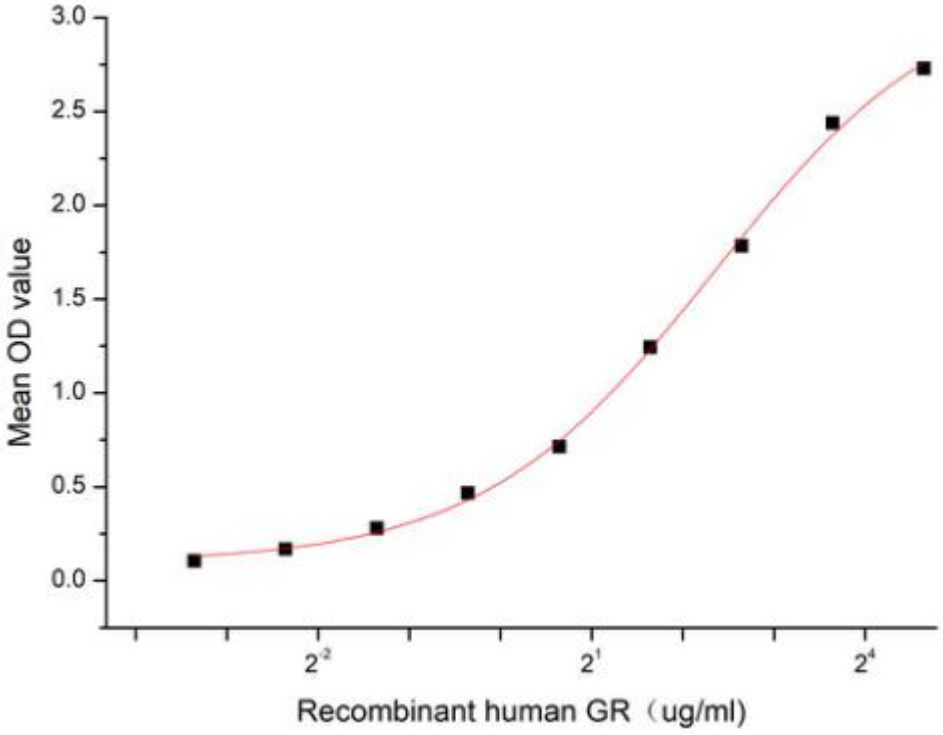

Figure 1. The binding activity of recombinant human GR and recombinant human HSPA4

[IDENTIFICATION]

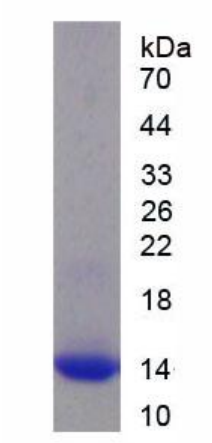

Figure 2. SDS-PAGE

Sample: Active recombinant GR, 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.