APA464Hu01 100μg
Active Mineralocorticoid Receptor (MR)
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: Val739~Lys984
Tags: N-terminal His and GST Tag
Purity: >80%
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: 58.7kDa
Accurate Molecular Mass: 59kDa 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]

VM VLENIEPEIV
YAGYDSSKPD TAENLLSTLN RLAGKQMIQV VKWAKVLPGF KNLPLEDQIT
LIQYSWMCLS SFALSWRSYK HTNSQFLYFA PDLVFNEEKM HQSAMYELCQ
GMHQISLQFV RLQLTFEEYT IMKVLLLLST IPKDGLKSQA AFEEMRTNYI
KELRKMVTKC PNNSGQSWQR FYQLTKLLDS MHDLVSDLLE FCFYTFRESH
ALKVEFPAML VEIISDQLPK VESGNAKPLY FHRK

[ACTIVITY]

The Mineralocorticoid Receptor (MR) is a ligand-activated transcription factor that mediates aldosterone signaling, regulating electrolyte balance and blood pressure in the kidney. Beyond its classical role, MR influences inflammation, fibrosis, and cardiovascular pathophysiology. As a member of the nuclear receptor superfamily, MR requires chaperone proteins for proper folding and function. Heat Shock Protein 90kDa Alpha B1 (HSP90aB1) is a molecular chaperone that stabilizes MR in its inactive state, facilitating hormone binding and nuclear translocation upon activation. Thus a functional ELISA assay was conducted to detect the interaction of recombinant human MR and recombinant human HSP90aB1. Briefly, MR was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to HSP90aB1-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-MR 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 MR and recombinant human HSP90aB1

was shown in Figure 1, the EC50 for this effect is 1.68ug/mL.

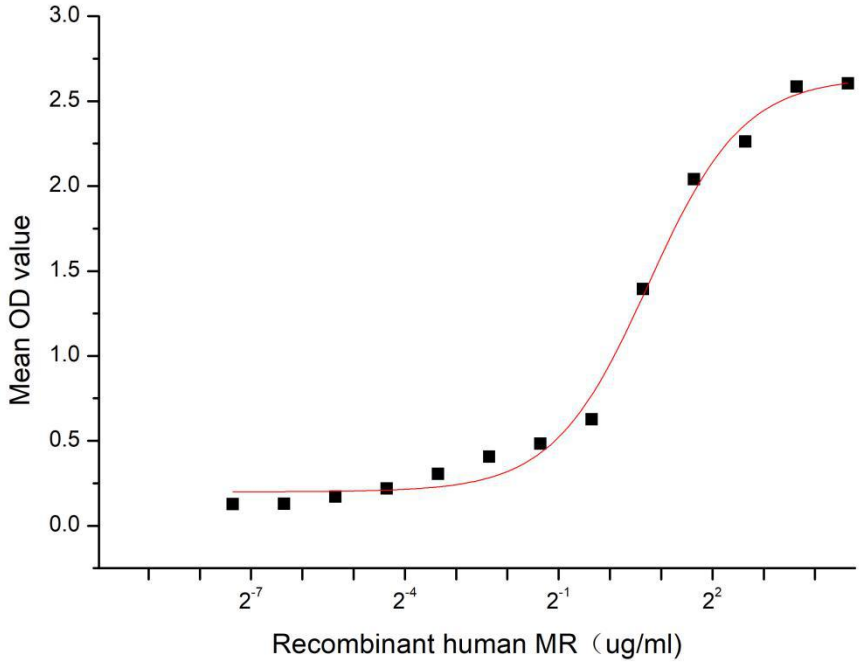

Figure 1. The binding activity of recombinant human MR and human HSP90aB1

[IDENTIFICATION]

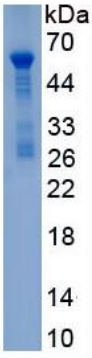

Figure 3. SDS-PAGE

Sample: Active recombinant MR, 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.