APM285Hu03 100μg
Active Steroid 5 Alpha Reductase 2 (SRD5a2)
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: His93~Arg145
Tags: N-terminal His and GST 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: 8.7
Predicted Molecular Mass: 36.2kDa
Accurate Molecular Mass: 37kDa 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]

HRTFVYSLLNRGRPYPAILILRGTAFCTGNGVLQGYYLIYCAEYPDGWYTDIR

[ACTIVITY]

Steroid 5 Alpha Reductase 2 (SRD5a2) is a microsomal enzyme critical in steroid metabolism, primarily converting testosterone to dihydrotestosterone (DHT), a potent androgen. Expressed in androgen-sensitive tissues (e.g., prostate, skin), it regulates male sexual development, hair growth, and prostate function. Additionally, the SRD5a2-CYP17A1 complex optimizes androgen synthesis: CYP17A1 generates testosterone precursors, while SRD5a2 amplifies androgen potency via DHT production. This collaboration ensures efficient testosterone utilization and targeted DHT formation, critical for physiological androgen effects and pathological conditions.Thus a functional ELISA assay was conducted to detect the interaction of recombinant human SRD5a2 and recombinant human CYP17A1. Briefly, CYP17A1 was diluted serially in PBS with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to SRD5a2-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST and incubated for 1h with anti-CYP17A1 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. Measured by its binding ability in a functional ELISA. When recombinant SRD5a2 is Immobilized at 2 ug/mL(100 uLwell), the concentration of CYP17A1 that produces 50% optimal bindingresponse is found to

be approximately 0.307 ug/mL.

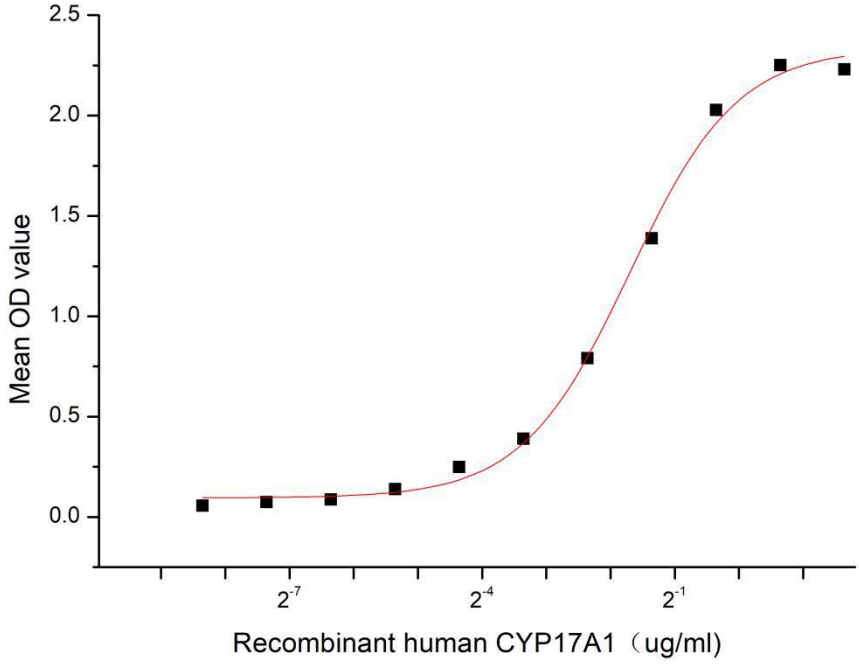

Figure 1. The binding activity of human SRD5a2 and recombinant human CYP17A1

[IDENTIFICATION]

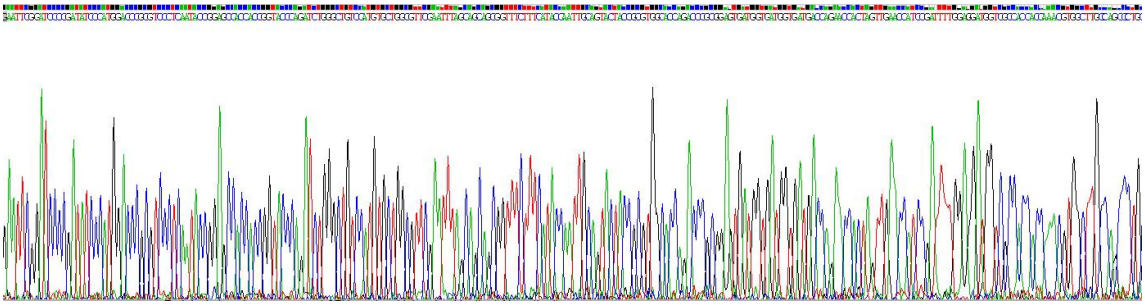

Figure 2. Gene Sequencing (extract)

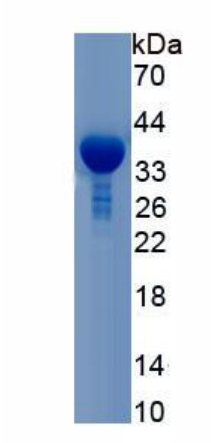

Figure 3. SDS-PAGE

Sample: Active recombinant SRD5a2, 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.