APM286Mu01 100µg Active Steroid 5 Alpha Reductase 1 (SRD5a1) Organism Species: *Mus musculus (Mouse) 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~Leu255 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% 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: 8.7 Predicted Molecular Mass: 59.3kDa Accurate Molecular Mass: 57kDa as determined by SDS-PAGE reducing conditions.

[<u>USAGE</u>]

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 2-8°C for one month.

Aliquot and store at -80°C for 12 months.

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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]

MELDELCLLD ALVYLEGFLA FVAFVGLQMV GSSYGRYSSQ WSGRRVPARP AWFLQELPSM AWPLYECIRP AAARLGNLPN RVLLAMFLIH YVQRTLVFPV LIRGGKPTLL FTFVLAFLFC TLNGYLQSRY LSQFAVYAED WVTHPCFLTG FALWLVGMVI NIHSDHILRN LRKPGETGYK IPRGGLFEYV SSANYFGELV EWCGFALASW SLQGVVFALF TLCALFTRAR QHHQWYLEKF EDYPKTRKIL IPFLL

[ACTIVITY]

Steroid 5 Alpha Reductase 1 (SRD5a1) a member of the steroid 5 α -reductase family (SRD5A1, SRD5A2 and SRD5A3) converting testosterone into 5-alpha-dihydrotestosterone and progesterone or corticosterone into their corresponding 5-alpha-3-oxosteroids. It plays a central role in sexual differentiation and androgen physiology. SRD5A1 was mainly expressed in the skin, scalp, liver, and brain tissues. Prostatic Adenoma and Prostatic Hyperplasia are associated with SRD5A1. Besides, 17-Beta-Hydroxysteroid Dehydrogenase Type 3 (HSD17b3) has been identified as an interactor of SRD5a1, thus a functional binding ELISA assay was conducted to detect the interaction of recombinant mouse SRD5a1 and recombinant human HSD17b3. Briefly, biotin-linked SRD5a1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 µ I were then transferred to HSD17b3-coated microtiter wells and incubated for 1h at 37 $^\circ$ C . 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 °C. Finally, add 50 µl stop solution to the wells and read at 450 nm immediately. The binding activity of recombinant mouse SRD5a1 and

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recombinant human HSD17b3 was shown in Figure 1, the EC50 for this effect is 0.03 ug/mL.



Figure 1. The binding activity of recombinant mouse SRD5a1 and recombinant human

HSD17b3

[IDENTIFICATION]



Figure 2. Gene Sequencing (extract)

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kDa 70
44
33
26
22
18
14
10

Figure 3. SDS-PAGE

Sample: Active recombinant SRD5a1, Mouse

[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.