APF171Hu01 100μg
Active 17-Beta-Hydroxysteroid Dehydrogenase Type 1 (HSD17b1)
Organism Species: *Homo sapiens* (Human)
Instruction manual

FOR RESEARCH USE ONLY
NOT FOR USE IN CLINICAL DIAGNOSTIC PROCEDURES

12th Edition (Revised in Aug, 2016)

[PROPERTIES]

Source: Prokaryotic expression.
Host: *E. coli*
Residues: Thr4~Pro289
Tags: N-terminal His-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: 6.7
Predicted Molecular Mass: 34.8kDa
Accurate Molecular Mass: 33kDa 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]

TVVLITG CSSGIGLHLA VRLASDPSQS FKVYATLRDL KTQGRLWEAA
RALACPPGSL ETLQLDVRDS KSVAAARERV TEGRVDVLVC NAGLGLLGPL
EALGEDAVAS VLDVNVVGTV RMLQAFLPDM KRRGSGRVLV TGSVGGLMGL
PFNDVYCASK FALEGLCESL AVLLLPFGVH LSLIECGPVH TAFMEKVLGS
PEEVLDRTDI HTFHRFYQYL AHSKQVFREA AQNPEEVAEV FLTALRAPKP
TLRYFTTERF LPLLRMRLDD PSGSNYVTAM HREVFGDVP

[ACTIVITY]

Hydroxysteroid (17β) dehydrogenase 1 (HSD17b1) is a steroidogenic enzyme that especially catalyzes the conversion of low potent 17keto-steroids to highly potent 17β-hydroxysteroids. It has a dual function in estrogen activation and androgen inactivation and plays a major role in establishing the estrogen E2 concentration gradient between serum and peripheral tissues. Cytochrome P450 1B1 is involved in the metabolism of various endogenous substrates, including fatty acids, steroid hormones and vitamins. Thus a binding ELISA assay was conducted to detect the interaction of recombinant human HSD17b1 and recombinant human CYP1B1. Briefly, HSD17b1 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to CYP1B1-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-HSD17B1 pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 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 nm immediately.

The binding activity of recombinant human HSD17b1 and recombinant human CYP1B1 was shown in Figure 1, the EC50 for this effect is 0.098 ug/mL.

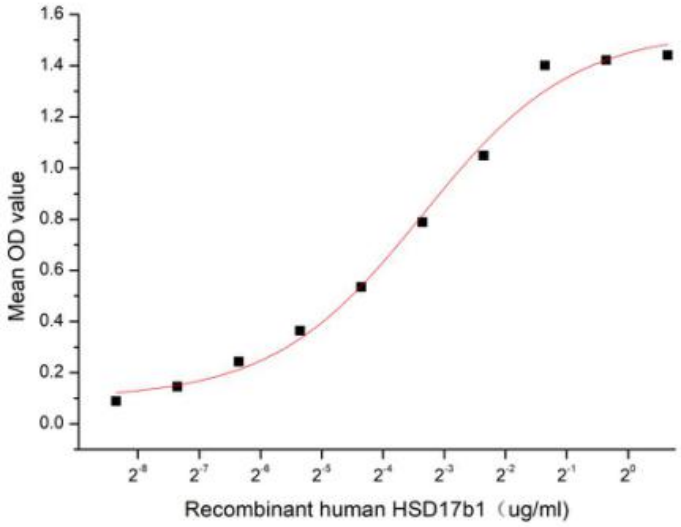

Figure 1. The binding activity of recombinant human HSD17b1 and recombinant human CYP1B1

[IDENTIFICATION]

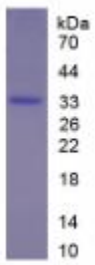

Figure 2. SDS-PAGE

Sample: Active recombinant HSD17b1, 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.