APF175Hu01 100μg
Active 17-Beta-Hydroxysteroid Dehydrogenase Type 14 (HSD17b14)
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: Met1~Ser270
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% 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: 5.8
Predicted Molecular Mass: 32.0kDa
Accurate Molecular Mass: 32kDa 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]

MATGTRYAGK VVVVTGGGRG IGAGIVRAFV NSGARVVICD KDESGGRALE QELPGAVFIL CDVTQRDDVK TLVSETIRRF GRLDCVVNNA GHHPPPQRPE ETSAQGFRQL LELNLLGTYT LTKLALPYLR KSQGNVINIS SLVGAIGQAQ AVPYVATEGA VTAMTKALAL DESPYGVRVN CISPGNIWTP LWEELAALMP DPRATIREGM LAQPLGRMGQ PAEVGAAAVF LASDANFCTG IELLVTGGAE LGYGCKASRS TPVDAFDIPS

[ACTIVITY]

17-Beta-Hydroxysteroid Dehydrogenase Type 14 (HSD17b14) is an enzyme mainly expressed in the liver and other tissues. It belongs to the hydroxysteroid dehydrogenase family and participates in the metabolism of steroid hormones. HSD17b14 can catalyze the interconversion of specific steroid substrates, influencing the balance of steroid hormone levels in the body.Brsides,HSD17b14 can regulate cellular pH and metabolic processes by binding to Carbonic Anhydrase VIII (CA8), affecting activities related to steroid metabolism and ion balance to maintain cellular stability.Thus a functional binding ELISA assay was conducted to detect the interaction of recombinant human HSD17b14 and recombinant human CA8 . Briefly, biotin-linked HSD17b14 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 μl were then transferred to CA8-coated microtiter wells and incubated for 1h at 37℃. 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℃. Finally, add 50μl stop solution to the wells and read at 450nm immediately. The binding activity of HSD17b14 and CA8 was shown in Figure 1, the EC50 for this effect is 0.23ug/mL.

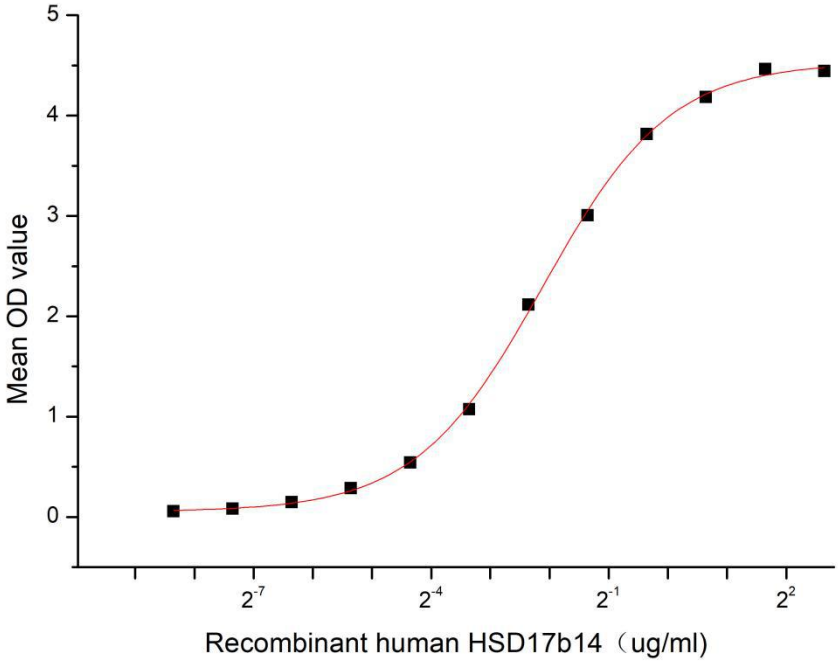

Figure 1. The binding activity of recombinant human HSD17b14 and recombinant human CA8

[IDENTIFICATION]

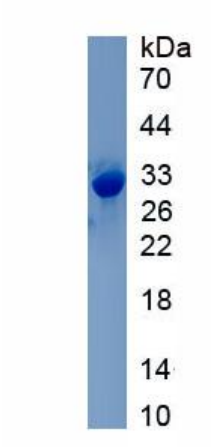

Figure 2. SDS-PAGE

Sample: Active recombinant HSD17b14, 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.