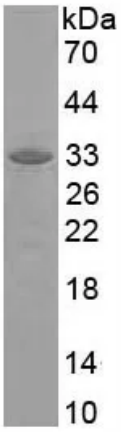
Active 17-Beta-Hydroxysteroid Dehydrogenase Type 3 (HSD17b3)

Catalog#:PEH12949

概述（Summary）

别称（Alternative Names）	SDR12C2; EDH17B3; Short Chain Dehydrogenase/Reductase Family 12C,Member 2; Testosterone 17-Beta-Dehydrogenase 3; Testicular 17-beta-hydroxysteroid dehydrogenase
纯度（Purity）	Greater than 90% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Met1-Arg310】
Accession #	P37058
表达宿主（Host）	E.coli
种属（Species）	Homo sapiens (Human)
预测分子量（Predicted MW）	38.2 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 10mM PBS (pH7.4) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Favors the reduction of androstenedione to testosterone. Uses NADPH while the two other EDH17B enzymes use NADH. Androgens such as epiandrosterone, dehydroepiandrosterone, androsterone and androstanedione are accepted as substrates and reduced at C-17. Can reduce 11-ketoandrostenedione as well as 11beta-hydroxyandrostenedione at C-17 to the respective testosterone forms.

电泳图（SDS-PAGE image）



Greater than 90% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

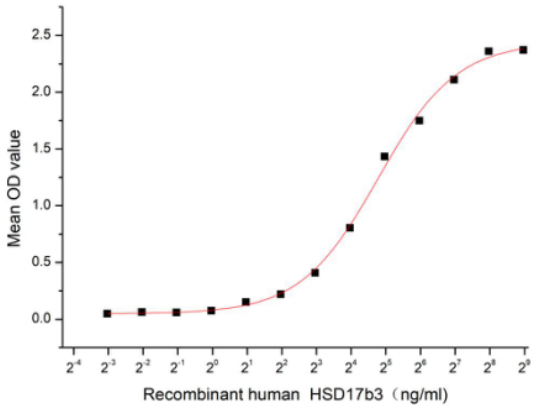


Figure 1. The binding activity of recombinant human HSD17b3 and human SRD5a2

17-Beta-Hydroxysteroid Dehydrogenase Type 3 (HSD17b3) belongs to the HSD17B family with NAD(P)H/NAD(P) -dependent oxidoreductase activity that catalyzes the interconversion between 17-ketosteroids and 17-hydroxysteroids to maintain the balance between less potent (17-keto) and more potent (17β-hydroxy) forms of estrogens and androgens. This isoform of 17 beta-hydroxysteroid dehydrogenase is expressed predominantly in the testis and catalyzes the conversion of androstenedione to testosterone. 3-oxo-5-alpha-steroid 4-dehydrogenase 2 (SRD5a2) is a enzyme which plays a central role in sexual differentiation and androgen physiology. A functional ELISA assay was conducted to detect the interaction of recombinant human HSD17b3 and recombinant human SRD5a2. Briefly, HSD17b3 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-HSD17b3 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 HSD17b3 and recombinant human SRD5a2 was shown in Figure 1, the EC50 for this effect is 27.6 ng/mL.

注意事项（Note）

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