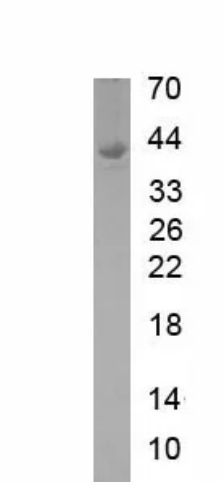
Active 7-Dehydrocholesterol Reductase (DHCR7)

Catalog#:PEH12831

概述（Summary）

别称（Alternative Names）	DHCR-7; SLOS; D7SR; Smith-Lemli-Opitz Syndrome; Putative sterol reductase SR-2; Sterol Delta(7)-reductase
纯度（Purity）	Greater than 95% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Cys61-Leu153】
Accession #	Q9UBM7
表达宿主（Host）	E.coli
种属（Species）	Homo sapiens (Human)
预测分子量（Predicted MW）	40.2 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）	7-dehydrocholesterol reductase of the cholesterol biosynthetic pathway reducing the C7-C8 double bond of cholesta-5,7-dien-3beta-ol (7-dehydrocholesterol/7-DHC) and cholesta-5,7,24-trien-3beta-ol, two intermediates in that pathway.

电泳图（SDS-PAGE image）



Greater than 95% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

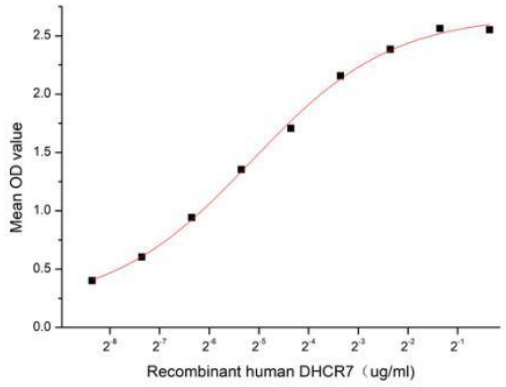


Figure 1. The binding activity of recombinant human DHCR7 and recombinant human CH25H

DHCR7 (7-dehydrocholesterol reductase) is a rate-limiting enzyme in cholesterol synthesis, which is mainly involved in the conversion of 7-dehydrocholesterol (7-DHC) to cholesterol. In the cholesterol biosynthetic pathway, this protease can reduce the C7-C8 double bond of cholesta-5,7-dien-3beta-ol (7-dehydrocholesterol/7-DHC) and cholesta-5,7,24-trien-3beta-ol, two intermediates in that pathway. In the absence of functional DHCR7, accumulation of 7DHC and a lack of cholesterol production leads to the devastating developmental disorder, Smith-Lemli-Opitz syndrome. Cholesterol 25-hydroxylase (CH25H) can also repress cholesterol biosynthetic enzymes. A functional ELISA assay was conducted to detect the interaction of recombinant human DHCR7 and recombinant human CH25H. Briefly, biotin-linked DHCR7 were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100 ul were then transferred to CH25H-coated microtiter wells and incubated for 1h at 37℃. Wells were washed with PBST 3 times and incubation with Streptavidin-HRP for 30 min, then 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 nm immediately. The binding activity of recombinant human DHCR7 and recombinant human CH25H was shown in Figure 1, the EC50 for this effect is 0.028 ug/mL.

注意事项（Note）

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