Recombinant 17-Beta-Hydroxysteroid Dehydrogenase Type 10 (HSD17b10)(N-6His)

Catalog#:PEM22595

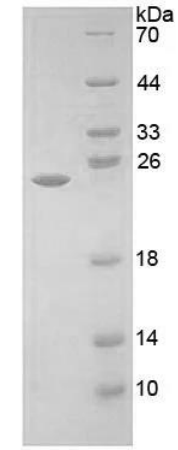
概述（Summary）

别称（Alternative Names）	17b-HSD10; ABAD; ERAB; HADH2; HCD2; MHBD; SCHAD; SDR5C1, MRPP2; CAMR; 3-Hydroxyacyl-CoA Dehydrogenase Type-2; AB-Binding Alcohol Dehydrogenase
纯度（Purity）	Greater than 97% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	<1 EU/μg as determined by LAL test.
蛋白构建（Construction）	6His-【Ala4-Ala202】
Accession #	O08756
表达宿主（Host）	E.coli
种属（Species）	Mus musculus (Mouse)
预测分子量（Predicted MW）	24.1 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）	Mitochondrial dehydrogenase involved in pathways of fatty acid, branched-chain amino acid and steroid metabolism. Acts as (S)-3-hydroxyacyl-CoA dehydrogenase in mitochondrial fatty acid beta-oxidation, a major degradation pathway of fatty acids. Catalyzes the third step in the beta-oxidation cycle, namely the reversible conversion of (S)-3-hydroxyacyl-CoA to 3-ketoacyl-CoA. Preferentially accepts straight medium- and short-chain acyl-CoA substrates with

highest efficiency for (3S)-hydroxybutanoyl-CoA. Acts as 3-hydroxy-2-methylbutyryl-CoA dehydrogenase in branched-chain amino acid catabolic pathway. Catalyzes the oxidation of 3-hydroxy-2-methylbutanoyl-CoA into 2-methyl-3-oxobutanoyl-CoA, a step in isoleucine degradation pathway. Has hydroxysteroid dehydrogenase activity toward steroid hormones and bile acids. Catalyzes the oxidation of 3alpha-, 17beta-, 20beta- and 21-hydroxysteroids and 7alpha- and 7beta-hydroxy bile acids. Oxidizes allopregnanolone/brexanolone at the 3alpha-hydroxyl group, which is known to be critical for the activation of gamma-aminobutyric acid receptors (GABAARs) chloride channel. Has phospholipase C-like activity toward cardiolipin and its oxidized species. Likely oxidizes the 2'-hydroxyl in the head group of cardiolipin to form a ketone intermediate that undergoes nucleophilic attack by water and fragments into diacylglycerol, dihydroxyacetone and orthophosphate. Has higher affinity for cardiolipin with oxidized fatty acids and may degrade these species during the oxidative stress response to protect cells from apoptosis. By interacting with intracellular amyloid-beta, it may contribute to the neuronal dysfunction associated with Alzheimer disease (AD). Essential for structural and functional integrity of mitochondria.; In addition to mitochondrial dehydrogenase activity, moonlights as a component of mitochondrial ribonuclease P, a complex that cleaves tRNA molecules in their 5'-ends. Together with TRMT10C/MRPP1, forms a subcomplex of the mitochondrial ribonuclease P, named MRPP1-MRPP2 subcomplex, which displays functions that are independent of the ribonuclease P activity. The MRPP1-MRPP2 subcomplex catalyzes the formation of N(1)-methylguanine and N(1)-methyladenine at position 9 (m1G9 and m1A9, respectively) in tRNAs; HSD17B10/MRPP2 acting as a non-catalytic subunit. The MRPP1-MRPP2 subcomplex also acts as a tRNA maturation platform: following 5'-end cleavage by the mitochondrial ribonuclease P complex, the MRPP1-MRPP2 subcomplex enhances the efficiency of 3'-processing catalyzed by ELAC2, retains the tRNA product after ELAC2 processing and presents the nascent tRNA to the mitochondrial CCA tRNA nucleotidyltransferase TRNT1 enzyme. Associates

with mitochondrial DNA complexes at the nucleoids to initiate RNA processing and ribosome assembly.

电泳图（SDS-PAGE image）



15% SDS-PAGE

Greater than 97% as determined by reducing SDS-PAGE.

注意事项（Note）

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