

HSD17B8 Blocking Peptide (N-term)

Synthetic peptide Catalog # BP21740a

Specification

HSD17B8 Blocking Peptide (N-term) - Product Information

Primary Accession

092506

HSD17B8 Blocking Peptide (N-term) - Additional Information

Gene ID 7923

Other Names

Estradiol 17-beta-dehydrogenase 8, 17-beta-hydroxysteroid dehydrogenase 8, 17-beta-HSD 8, 3-oxoacyl-[acyl-carrier-protein] reductase, 111-, Protein Ke6, Ke-6, Really interesting new gene 2 protein, Testosterone 17-beta-dehydrogenase 8, HSD17B8, FABGL, HKE6, RING2

Target/Specificity

The synthetic peptide sequence is selected from aa 53-67 of HUMAN HSD17B8

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

HSD17B8 Blocking Peptide (N-term) - Protein Information

Name HSD17B8

Synonyms FABGL, HKE6, RING2, SDR30C1

Function

Required for the solubility and assembly of the heterotetramer 3-ketoacyl-[acyl carrier protein] (ACP) reductase functional complex (KAR or KAR1) that forms part of the mitochondrial fatty acid synthase (mtFAS). Alpha-subunit of the KAR complex that acts as a scaffold protein required for the stability of carbonyl reductase type-4 (CBR4, beta-subunit of the KAR complex) and for its 3-ketoacyl- ACP reductase activity, thereby participating in mitochondrial fatty acid biosynthesis. Catalyzes the NAD-dependent conversion of (3R)-3- hydroxyacyl-CoA into 3-ketoacyl-CoA (3-oxoacyl-CoA) with no chain length preference; this enzymatic activity is not needed for the KAR function (PubMed:19571038/a>, PubMed:25203508/a>, PubMed:30508570/a>). Prefers (3R)-3-hydroxyacyl-CoA over (3S)-3-hydroxyacyl-CoA



and displays enzymatic activity only in the presence of NAD(+) (PubMed:19571038). Cooperates with enoyl-CoA hydratase 1 in mitochondria, together they constitute an alternative route to the auxiliary enzyme pathways for the breakdown of Z-PUFA (cis polyunsaturated fatty acid) enoyl-esters (Probable) (PubMed:30508570). NAD-dependent 17-beta-hydroxysteroid dehydrogenase with highest activity towards estradiol (17beta-estradiol or E2). Has very low activity towards testosterone and dihydrotestosterone (17beta-hydroxy-5alpha-androstan-3-one). Primarily an oxidative enzyme, it can switch to a reductive mode determined in the appropriate physiologic milieu and catalyze the reduction of estrone (E1) to form biologically active 17beta-estradiol (PubMed:17978863<a href="http://www.uniprot.org/citations

Cellular LocationMitochondrion matrix

Tissue Location

Widely expressed, particularly abundant in prostate, placenta and kidney (PubMed:17978863). Expressed at protein level in various tissues like brain, cerebellum, heart, lung, kidney, ovary, testis, adrenals and prostate (PubMed:30508570)

HSD17B8 Blocking Peptide (N-term) - Protocols

Provided below are standard protocols that you may find useful for product applications.

• Blocking Peptides

HSD17B8 Blocking Peptide (N-term) - Images

HSD17B8 Blocking Peptide (N-term) - Background

NAD-dependent 17-beta-hydroxysteroid dehydrogenase with highest activity towards estradiol. Has very low activity towards testosterone. The heteroteramer with CBR4 has NADH-dependent 3-ketoacyl-acyl carrier protein reductase activity. May play a role in biosynthesis of fatty acids in mitochondria.

HSD17B8 Blocking Peptide (N-term) - References

Kalnine N., et al. Submitted (MAY-2003) to the EMBL/GenBank/DDBJ databases. Mungall A.J., et al. Nature 425:805-811(2003).

Mural R.J., et al. Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases. Ando A., et al. Genomics 35:600-602(1996).

Ohno S., et al. Mol. Cell. Biochem. 309:209-215(2008).