AKR1C1 Blocking Peptide – The purity is >90%,tested by HPLC and MS. Purity

PRODUCT OVERVIEW

Product Name	AKR1C1, Blocking Peptide
Full Product Name	AKR1C1 Blocking Peptide
Product Gene Name	AKR1C1 blocking peptide
Product Synonym Names	2-dihydrobenzene-1; 2-diol dehydrogenase; 20 alpha (3 alpha) hydroxysteroid dehydrogenase; 20 ALPHA HSD; 20 alpha hydroxysteroid dehydrogenase; 20-alpha-HSD; 20-alpha-hydroxysteroid dehydrogenase; 20ALPHAHSD; 2ALPHAHSD; AK1C1; AK1C1_HUMAN; AKR1C1; Aldo keto reductase family 1 member C1; aldo-keto reductase C; Aldo-keto reductase family 1 member C1; Aldo-keto reductase family, 1 member 1; C9; Chlordecone reductase homolog; Chlordecone reductase homolog HAKRC; DD1; DD1/DD2; DDH; DDH1; Dihydrodiol dehydrogenase 1; Dihydrodiol dehydrogenase 1/2; dihydrodiol dehydrogenase 1; 20-alpha (3-alpha)-hydroxysteroid dehydrogenase; dihydrodiol dehydrogenase isoform DD1; Dihydrodiol dehydrogenase, type 1; H37; HAKRC; HBAB; Hepatic dihydrodiol dehydrogenase; High affinity hepatic bile acid-binding protein; High-affinity hepatic bile acid-binding protein; Indanol dehydrogenase; MBAB; MGC8954; Trans-1; Trans-1, 2 dihydrobenzene 1, 2 diol dehydrogenase; Type II 3 alpha hydroxysteroid dehydrogenase
Form/Format	Synthetic peptide was lyophilized with 100% acetonitrile and is supplied as a powder. Reconstitute with 0.1 ml DI water for a final concentration of 10 mg/ml.
Purity/Purification	The purity is >90%,tested by HPLC and MS.
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C.
Antibody/Peptide Pairs	AKR1C1 peptide (MBS9628210) is used for blocking the activity of AKR1C1 antibody (MBS9609506)
Molecular Weight	36,788 Da
OMIM	600449
Supply Chain Verification	Manufactured in a lab with traceable raw materials manufactured on site. Coordinated product portfolio of antibodies, pairs, conjugates, recombinant proteins, and immunoassay materials available, please inquire.
Notes	For phospho antibody, we provide phospho peptide (0.5mg) and non-phospho peptide (0.5mg)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for AKR1C1 blocking peptide	Blocking/Control
Related Product Information for AKR1C1 blocking peptide	Blocking peptides are peptides that bind specifically to the target antibody and block antibody binding. These peptide usually contains the epitope recognized by the antibody. Antibodies bound to the blocking peptide no longer bind to the epitope on the target protein. This mechanism is useful when non-specific binding is an issue, for example, in Western blotting (immunoblot) and immunohistochemistry (IHC). By comparing the staining from the blocked antibody versus the antibody alone, one can see which staining is specific; Specific binding will be absent from the western blot or immunostaining performed with the neutralized antibody.
Other Notes	Small volumes of AKR1C1 blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for AKR1C1 purchase	MBS9628210 is a blocking peptide targeting AKR1C1.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for AKR1C1. It may not necessarily be applicable to this product.

NCBI GI #	5453543
NCBI GeneID	1645
NCBI Accession #	NP_001344.2
UniProt Primary Accession #	Q04828
UniProt Secondary Accession #	P52896; Q5SR15; Q7M4N2; Q9UCX2
UniProt Related Accession #	Q04828
GenBank Nucleotide #	NM_001353.5
NCBI Official Full Name	aldo-keto reductase family 1 member C1
NCBI Official Synonym Full Names	aldo-keto reductase family 1, member C1
NCBI Official Symbol	AKR1C1
NCBI Official Synonym Symbols	C9; DD1; DDH; DDH1; H-37; HBAB; MBAB; HAKRC; DD1/DD2; 2-ALPHA-HSD; 20-ALPHA-HSD
UniProt Protein Name	Aldo-keto reductase family 1 member C1
UniProt Synonym Protein Names	20-alpha-hydroxysteroid dehydrogenase (EC:1.1.1.149); 20-alpha-HSD; Chlordecone reductase homolog HAKRC; Dihydrodiol dehydrogenase 1/2; DD1/DD2; High-affinity hepatic bile acid-binding protein; HBAB; Indanol dehydrogenase (EC:1.1.1.112); Trans-1,2-dihydrobenzene-1,2-diol dehydrogenase (EC:1.3.1.20)
Protein Family	Aldo-keto reductase family
UniProt Gene Name	AKR1C1
UniProt Synonym Gene Names	DDH; DDH1; 20-alpha-HSD; DD1/DD2; HBAB
UniProt Entry Name	AK1C1_HUMAN
NCBI Protein Information	aldo-keto reductase family 1 member C1; 20 alpha-hydroxysteroid dehydrogenase; 20-alpha-hydroxysteroid dehydrogenase; aldo-keto reductase C; chlordecone reductase homolog HAKRC; dihydrodiol dehydrogenase 1; dihydrodiol dehydrogenase 1/2; dihydrodiol dehyd
NCBI Summary for AKR1C1	This gene encodes a member of the aldo/keto reductase superfamily, which consists of more than 40 known enzymes and proteins. These enzymes catalyze the conversion of aldehydes and ketones to their corresponding alcohols by utilizing NADH and/or NADPH as cofactors. The enzymes display overlapping but distinct substrate specificity. This enzyme catalyzes the reaction of progesterone to the inactive form 20-alpha-hydroxy-progesterone. This gene shares high sequence identity with three other gene members and is clustered with those three genes at chromosome 10p15-p14. [provided by RefSeq, Jul 2008]

UniProt Comments for AKR1C1	AKR1C1: Converts progesterone to its inactive form, 20-alpha- dihydroxyprogesterone (20-alpha-OHP). In the liver and intestine, may have a role in the transport of bile. May have a role in monitoring the intrahepatic bile acid concentration. Has a low bile-binding ability. May play a role in myelin formation. Belongs to the aldo/keto reductase family. Protein type: EC 1.1.1.112; Xenobiotic Metabolism - metabolism by cytochrome P450; EC 1.1.1.149; EC 1.3.1.20; Oxidoreductase Chromosomal Location of Human Ortholog: 10p15-p14 Cellular Component: cytosol Molecular Function: oxidoreductase activity, acting on NADH or NADPH, quinone or similar compound as acceptor; ketosteroid monooxygenase activity; 3-alpha-hydroxysteroid dehydrogenase (B-specific) activity; carboxylic acid binding; bile acid binding; trans-1,2-dihydrobenzene-1,2-diol dehydrogenase activity; aldo-keto reductase activity; 20-alpha-hydroxysteroid dehydrogenase activity; indanol dehydrogenase activity; aldehyde reductase activity; phenanthrene 9,10-monooxygenase activity Biological Process: bile acid and bile salt transport; phototransduction, visible light; response to organophosphorus; cholesterol homeostasis; retinal metabolic process; epithelial cell differentiation; bile acid metabolic process; xenobiotic metabolic process; digestion; cholesterol absorption; progesterone metabolic process; retinoid metabolic process; protein homooligomerization
Research Articles on AKR1C1	**1.** Studies indicate that mutations in aldo-keto reductase family 1 (AKR1) enzymes AKR1C1 and AKR1C4 are responsible for sexual development dysgenesis and mutations in AKR1D1 are causative in bile-acid deficiency.
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