

Datasheet for ABIN7552014
AKR1C2 Protein (AA 1-323) (His tag)



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Overview

Quantity:	1 mg
Target:	AKR1C2
Protein Characteristics:	AA 1-323
Origin:	Human
Source:	HEK-293 Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This AKR1C2 protein is labelled with His tag.
Application:	Western Blotting (WB), SDS-PAGE (SDS)

Product Details

Purpose:	Custom-made recombinat AKR1C2 Protein expressed in mammalien cells.
Sequence:	MDSKYQCVKL NDGHFMPVLG FGTYAPAEVP KSKALEAVKL AIEAGFHHID SAHVYNNEEQ VGLAIRSKIA DGSVKREDIF YTSKLWSNSH RPELVPALE RSLKNLQLDY VDLYLIHFPV SVKPGEEVIP KDENGKILFD TVDLCATWEA MEKCKDAGLA KSIGVSNFNH RLLEMILNKP GLKYKPCVNCQ VECHPYFNQR KLLDFCKSKD IVLVAYSALG SHREEPWVDP NSPVLLEDPV LCALAKKHKR TPALIALRYQ LQRGVVVLAK SYNEQRIRQN VQVFEFQLTS EEMKAIDGLN RNVRYLTLDI FAGPPNYPFS DEY Sequence without tag. The proposed Purification-Tag is based on experiences with the expression system, a different complexity of the protein could make another tag necessary. In case you have a special request, please contact us.
Characteristics:	Key Benefits: <ul style="list-style-type: none">• Made to order protein - from design to production - by highly experienced protein experts.

Product Details

- Protein expressed in mammalian cells and purified in one-step affinity chromatography
- The optimized expression system ensures reliability for intracellular, secreted and transmembrane proteins.
- State-of-the-art algorithm used for plasmid design (Gene synthesis).

This protein is a made-to-order protein and will be made for the first time for your order. Our experts in the lab try to ensure that you receive soluble protein.

If you are not interested in a full length protein, please contact us for individual protein fragments.

The big advantage of ordering our made-to-order proteins in comparison to ordering custom made proteins from other companies is that there is no financial obligation in case the protein cannot be expressed or purified.

Purity:	> 90 % as determined by Bis-Tris Page, Western Blot
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Grade:	custom-made
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Target Details

Target:	AKR1C2
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Alternative Name:	AKR1C2 (AKR1C2 Products)
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Background:	<p>Aldo-keto reductase family 1 member C2 (EC 1.-.-.) (EC 1.1.1.112) (EC 1.1.1.209) (EC 1.1.1.53) (EC 1.1.1.62) (EC 1.3.1.20) (3-alpha-HSD3) (Chlordecone reductase homolog HAKRD) (Dihydrodiol dehydrogenase 2) (DD-2) (DD2) (Dihydrodiol dehydrogenase/bile acid-binding protein) (DD/BABP) (Type III 3-alpha-hydroxysteroid dehydrogenase) (EC 1.1.1.357),FUNCTION: Cytosolic aldo-keto reductase that catalyzes the NADH and NADPH-dependent reduction of ketosteroids to hydroxysteroids (PubMed:19218247). Most probably acts as a reductase in vivo since the oxidase activity measured in vitro is inhibited by physiological concentrations of NADPH (PubMed:14672942). Displays a broad positional specificity acting on positions 3, 17 and 20 of steroids and regulates the metabolism of hormones like estrogens and androgens (PubMed:10998348). Works in concert with the 5-alpha/5-beta-steroid reductases to convert steroid hormones into the 3-alpha/5-alpha and 3-alpha/5-beta-tetrahydrosteroids. Catalyzes the inactivation of the most potent androgen 5-alpha-dihydrotestosterone (5-alpha-DHT) to 5-alpha-androstane-3-alpha,17-beta-diol (3-alpha-diol) (PubMed:15929998, PubMed:17034817, PubMed:17442338, PubMed:8573067). Also specifically able to produce 17beta-hydroxy-5alpha-androstan-3-one/5alphaDHT (PubMed:10998348). May also reduce conjugated steroids</p>
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Target Details

such as 5alpha-dihydrotestosterone sulfate (PubMed:19218247). Displays affinity for bile acids (PubMed:8486699). {ECO:0000269|PubMed:10998348, ECO:0000269|PubMed:14672942, ECO:0000269|PubMed:15929998, ECO:0000269|PubMed:17034817, ECO:0000269|PubMed:17442338, ECO:0000269|PubMed:19218247, ECO:0000269|PubMed:8486699, ECO:0000269|PubMed:8573067}.

Molecular Weight: 36.7 kDa

UniProt: [P52895](#)

Pathways: [Steroid Hormone Biosynthesis](#), [C21-Steroid Hormone Metabolic Process](#)

Application Details

Application Notes: In addition to the applications listed above we expect the protein to work for functional studies as well. As the protein has not been tested for functional studies yet we cannot offer a guarantee though.

Restrictions: For Research Use only

Handling

Format: Liquid

Buffer: The buffer composition is at the discretion of the manufacturer.

Handling Advice: Avoid repeated freeze-thaw cycles.

Storage: -80 °C

Storage Comment: Store at -80°C.

Expiry Date: 12 months