

AKR1C1, 1-323aa

Human, His-tagged, Recombinant, *E.coli*

Cat. No. IBATGP0496

Full name: Aldo-keto reductase family 1, member C1

NCBI Accession No.: NP_001344

Synonyms: 20-alpha-HSD, DD1/DD2, HBAB, DDH, DDH1

Description: AKR1C1 is 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 reduction of progesterone to the inactive form 20-alpha-hydroxy-progesterone. Recombinant AKR1C1 protein was expressed in *E.coli* and purified by using conventional chromatography techniques.

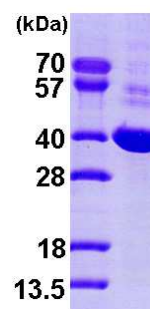
Form: Liquid. In 20mM Tris-HCl buffer (pH8.0) containing 1mM DTT, 20% glycerol

Molecular Weight: 38.9 kDa (343aa), confirmed by MALDI-TOF

Purity: > 90% by SDS - PAGE

Concentration: 0.5 mg/ml (determined by Bradford assay)

Biological activity: Specific activity is > 500 pmol/min/ug, and is defined as the amount of enzyme that catalyze the reduction of 1.0 pmole 3-chlorobenzaldehyde presence of NADP per minute at pH 8.8 at 25C.



15% SDS-PAGE (3ug)

Sequences of aminoacids:

MGSSHHHHHH SSSLVPRGSH MDSKYQCVKL NDGHFMPVLG FGTYAPAEVP KSKALEATKL AIEAGFRHID SAHLYNNEEQ VGLAIRSKIA
DGSVKREDIF YTSKLCWNSH RPELVPALE RSLKNLQLDY VDLYLIHFPV SVKPGEEVIP KDENGKILFD TVDLCATWEA VEKCKDAGLA
KSI GVSNFNR RQLEMILNKP GLKYKPCVQV VECVPHYFNQR KLLDFCKSKD IVLVAYSALG SHREEPWVDP NSPVLLEDVPC LALAKKHKR
TPALIALRYQ LQRGVVVLAK SYNEQRIRQN VQVFEFQLTS EEMKAIDGLN RNVRYLTLDI FAGPPNYFDS DEY

General references:

Zhang Y., *et al.* (2000) *J. Mol. Endocrinol.* 25:221-228

Zhang Y., *et al.* (2009) *Mol Cell Endocrinol.* 298(1-2):76-83

Storage: Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C.
Avoid repeated freezing and thawing cycles.

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.



Manufactured for:

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