

Human Recombinant AKR7A2

CATALOG #:	6335-100	100 µg
ALTERNATE NAMES:	Aldo-keto reductase family 7, member A 2, Aflatoxin B1 aldehyde reductase member 2, AFAR, AFAR1, AFB1-AR1, AKR7.	
SOURCE:	E.Coli	
PURITY:	> 90% by SDS - PAGE	
MOL. WEIGHT:	44 kDa (398 aa, 1-359 aa + His Tag)	
FORMULATION:	0.5 mg/ml solution in 20 mM Tris-HCl buffer (pH 8.0) containing 1 mM DTT and 20% glycerol.	

STORAGE CONDITIONS:

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.

DESCRIPTION:

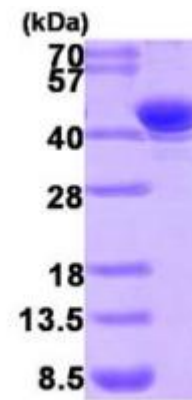
Aldo-keto reductases, such as AKR7A2, are involved in the detoxification of aldehydes and ketones. This protein can reduce the dialdehyde protein-binding form of aflatoxin B1 (AFB1) to the nonbinding AFB1 dialcohol. It may be involved in protection of liver against the toxic and carcinogenic effects of AFB1, a potent hepatocarcinogen. Also, it has been proposed previously to catalyze the NADPH-dependent reduction of succinic semialdehyde (SSA) to Gamma-Hydroxybutyrate in human brain.

AMINO ACID SEQUENCE:

MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSELE LSAASRVVSR
 AAVHCALRSP PPEARALAMS RPPPRVASV LGTMEMGRRM DAPASAAVVR
 AFLERGHTEL DTAFMYSDGQ SETILGGLGL GLGGGDCRVK IATKANPWDG KSLKPDSVRS
 QLETSLKRLQ CPQVDLFYLH APDHGTPVEE TLHACQRLHQ EGKFVELGLS NYASWEVAEI
 CTLCKSNWGI LPTVYQGMYN ATTRQVETEL FPCLRHFGLR FYAYNPLAGG
 LLTGKYKYED KDGKQPVGRF FGNSWAETYR NRFWKEHHFE AIALVEKALQ
 AAYGASAPSV TSAALRWMYH HSLLQGAHGD AVILGMSSLE QLEQNLAATE
 EGPLEPAVVD AFNQAWHLVA HECPNYFR

BIOLOGICAL ACTIVITY:

Specific activity is > 300 pmol/min/ug, and is defined as the amount of enzyme that catalyze the reduction 1.0 pmole of 1,2-Naphthoquinone presence of NADPH per minute at pH 7.0 at 25C.



15% SDS-PAGE (3ug)

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RELATED PRODUCTS:

- Aldehyde Dehydrogenase Activity Colorimetric Assay kit (Cat. No. K731-100)
- PicoProbe™ Aldehyde Dehydrogenase Activity Assay kit (Cat. No. K741-100)
- Human recombinant ALDH2 (Cat. No. 6332-100)
- Human recombinant ALDH3A1 (Cat. No. 6333-50)
- Human recombinant AKR7A3 (Cat. No. 6334-50)
- Human recombinant AKR1C1 (Cat. No. 6336-50)
- Human recombinant AKR1C3 (Cat. No. 6337-50)
- Human recombinant AKR1C4 (Cat. No. 6338-50)
- Human recombinant AKR1B10 (Cat. No. 6339-50)

FOR RESEARCH USE ONLY! Not to be used in humans.