
Product Data Sheet

Product Name: AKR7A3 Human

Cat. No.: GP21383

Batch No.: 1

Product Data

Purity	>98%	Source	Escherichia Coli.
Physical Appearance	solid	Shipping Condition	Shipped with Ice Packs.
Synonyms	AFAR2; Aflatoxin B1 aldehyde reductase member 3; AFB1 aldehyde reductase 2; AFB1-AR 2; AKR7A3.		
Amino Acid Sequence	MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSELEM SRQLSRARPA TVLGAMEMGR RMDAP TSAAV TRAFLE RGH T EIDTAFVYSE GQSETILGGL GLRLGGSDCR VKIDTKAIPL FGNSLKPDSL RFQLETSLKR LQCPRVDLFY LHMPDHSTPV EETLRACHQL HQEGKFVELG LSNYAAWEVA EICTLCKSNG WILPTVYQGM YNAITRQVET ELFPCLRHFG LRFYAFNPLA GLLTGKYKY EDKDGKQPVG RFFGNTWAEM YRNRYWKEHH FEGIALVEKA LQAAYGASAP SMTSATLRWM YHHSQLQGAH GDAVILGMSS LEQLEQNLA AEEGPLEPAV VDAFNQAWHL VAHECPNYFR.		
Formulation	The AKR7A3 solution contains 20mM Tris-HCl pH-8, 0.1M NaCl and 10% glycerol.		

Introduction

AKR7A3, takes part in the detoxification of aldehydes and ketones. AKR7A3 reduces the dialdehyde protein-binding form of aflatoxin B1 (AFB1) to the non-binding AFB1 dialcohol. AKR7A3 participates in protection of liver against the toxic and carcinogenic effects of AFB1, a potent hepatocarcinogen.

Biological Activity

Specific activity: approximately < 0.1 units/mg. Enzymatic activity was confirmed by measuring the amount of enzyme catalyzing the oxidation of 1 micromole NADPH per minute at 25C. Specific activity was expressed as units/mg protein.

Stability

Store at 4°C if entire vial will be used within 2-4 weeks. Store. frozen at -20°C for longer

Caution: Product has not been fully validated for medical applications. For research use only.

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periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

Background

AKR7A3 Human Recombinant fused to a 39 amino acids His Tag at N-terminal produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 370 amino acids (1-331 a.a.) and having a molecular mass of 41.6 kDa. The AKR7A3 is purified by proprietary chromatographic techniques.

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