

## 32-6657: AKR7A3, Human

**Application :** Functional Assay

**Alternative Name :** AFAR2, Aflatoxin B1 aldehyde reductase member 3, AFB1 aldehyde reductase 2, AFB1-AR 2, AKR7A3.

### Description

Source: Escherichia Coli.

Sterile Filtered colorless solution.

Aldo-Keto Reductase Family 7 Member A3 or AKR7A3, is an enzyme, it is part of the detoxification of aldehydes and ketones process. AKR7A3 diminishes the dialdehyde protein-binding form of aflatoxin B1 to the non-binding AFB1 dialcohol. The enzyme takes part in protection of liver from toxic and carcinogenic effects of AFB1, a potent hepatocarcinogen.

AKR7A3 Human Recombinant produced in E.Coli is a single, non-glycosylated polypeptide chain containing 331 amino acids (1-331) and having a molecular mass of 37.7 kDa. AKR7A3 is purified by proprietary chromatographic techniques.

### Product Info

**Amount :** 1 µg / 5 µg

**Purification :** Greater than 90.0% as determined by SDS-PAGE.

**Content :** The AKR7A3 solution (1mg/ml) contains 10% Glycerol and 20mM Tris-HCl buffer (pH 8.5).

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

**Amino Acid :** MSRQLSRARP ATVLGAMEMG RRMDAPTSAA VTRAFLEGRH TEIDTAFVYS EGQSETILGG LGLRLGGSDC  
RVKIDTKAIP LFGNSLKPDS LRFQLETSK RLQCPVDLF YLHMPDHSTP VEETLRACHQ LHQEGKFVEL  
GLSNYAWEV AEICTLCKSN GWILPTVYQG MYNAITRQVE TELFPCLRFH GLRFYAFNPL AGLLTGKYK  
YEDKDGKQPV GRFFGNTWAE MYRNRYWKEH HFEGIALVEK ALQAAYGASA PSMTSATLRW  
MYHHSQLQGA HGDAVILGMS SLEQLEQNLA AAEEGPLEPA VVDAFNQAWH LVAHECPNYF R

### Application Note

Specific activity is > 800pmol/min/ug. It is defined by the amount of enzyme that catalyzes the reduction 1.0pmole of 1,2-Naphthoquinone presence of NADPH per minute at pH 7.0 at 25°C.