

**AKR7A3, 1-331aa, Human, E.coli (Bioactivity Validated)**

**Cat.NO.: TP01113**

3th Edition

**Synonyms:** Aldo-keto reductase family 7, member A 3, Aflatoxin B1 aldehyde reductase member 3, AFB1 aldehyde reductase 2 (AFAR2)

**Description:** Aldo-keto reductase family 7, member A 3, also known as AKR7A3, is a member of the aldo/keto reductase superfamily, which consists of more than 40 known enzymes and proteins. This member includes a number of related monomeric NADPH-dependent oxidoreductases, such as aldehyde reductase, aldose reductase, prostaglandin F synthase, xylose reductase, rho crystallin, and many others. AKR7A3 is involved in the detoxification of aldehydes and ketones. The activity of AKR7A3 may detoxify the aflatoxin B1 (AFB1) dialdehyde, which reacts with proteins, and thereby inhibits AFB 1 induced toxicity. Recombinant human AKR7A3 was expressed in E.coli and purified by using conventional chromatography techniques.

**Form:** Liquid. In 20mM Tris-HCl buffer (pH8.5) containing 10% glycerol

**Molecular Weight:** 37.7 kDa (331aa)

**Sequences:**

MSRQLSRARPATVLGAMEMGRRMDAPTSAAVTRAFLERGHTEIDTAFVYSEGQSETILGGLGLRLGGSDCRVKIDT  
KAIPFLFGNSLKPDSLRFQLETSLKRLQCPRVDFYLMHPDHSTPVEETLRACHQLHQEGKFVELGLSNYAWEVAEI  
CTLCKSNGWILPTVYQGMYNITRQVETELFPCLRHFGRLRFYAFNPLAGLLTGKYKYEDKDQKQPVGRFFGNTW  
AEMYRNRYWKEHHFEGIALVEKALQAAYGASAPSMSTATLRWMYHHSQQLQGAHGDVILGMSSLEQLEQNLA  
EEGPLEPAVVDAFNQAWHLVAHECPNYFR

**Purity:** > 95% by HPLC

**Concentration:** 1 mg/ml (determined by Bradford assay)

**Endotoxin Level:** <1.0 EU per 1 ug of protein (determined by LAL method)

**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.