

# AKR1C3, human recombinant

<b>CATALOG #:</b>	6337-100 6337-1000	100 µg 1 mg
<b>ALTERNATE NAMES:</b>	Aldo-keto reductase family 1, member C3, DD3, DDX, HA1753, HAKRB, HAKRe, hluPGFS, HSD17B5	
<b>SOURCE:</b>	<i>E.Coli</i>	
<b>SEQUENCE:</b>	Amino acid residue 1-323 of human AKR1C3	
<b>PURITY:</b>	> 98% by SDS - PAGE	
<b>MOL. WEIGHT:</b>	39 kDa	
<b>FORM:</b>	Liquid	
<b>FORMULATION:</b>	1 mg/ml solution in 20 mM Tris-HCl buffer (pH 8.0) containing 20% glycerol.	

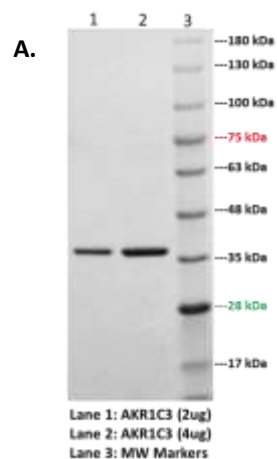
**STORAGE CONDITIONS:** Can be stored at 4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

**DESCRIPTION:** Aldo-keto reductase family member C3 in humans is encoded by the AKR1C3 gene. This enzyme catalyzes the reduction of prostaglandin (PG) D2, PGH2 and phenanthrenequinone (PQ), and oxidation of 9α, 11β-PGF2 to PGD2. It may play an important role in the pathogenesis of allergic diseases such as asthma, and may also have a role in controlling cell growth and/or differentiation.

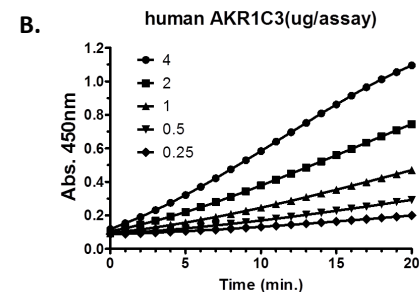
**BIOLOGICAL ACTIVITY:** The specific activity of AKR1C3 with 5 mM 1-Indanol is approximately 0.3 U/mg. (Specific activity is calculated by the colorimetric increasing of NADPH at 450 nm in presence of 2 µg AKR1C3, 5 mM 1-Indanol at 37°C, with the NADP+/NADPH colorimetric assay (Cat # K347-100))

**Unit Definition:** One unit is the amount of enzyme that reduces 1.0 µmole of NADP<sup>+</sup> to NADPH per min. at pH 7.4 at 37°C.

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



**Figure A. SDS-PAGE (4-20%) of Recombinant Human AKR1C3:** Recombinant AKR1C3 Protein loaded under reducing conditions and stained with Coomassie Blue. The protein has a predicted MW of 39 kDa.



**Figure B. Activity of Recombinant Human AKR1C3:** AKR1C3 reductase activity was detected by the NADP+/NADPH colorimetric assay (Cat # K347-100) at 450nm in presence of 5 mM 1-Indanol at pH 7.4, 37°C for 20 minutes.

## 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 AKR7A2 (Cat. No. 6335-50)
- Human recombinant AKR1B10 (Cat. No. 6339-100, 1000)
- Human recombinant AKR1C3 (Cat. No. 6337-50)
- Human recombinant AKR1C4 (Cat. No. 6338-50)
- AKR1C3 inhibitor I (Cat. No. 2403-5, 25)
- AKR1C3 inhibitor II (Cat. No. 2404-5, 25)
- AKR1C3 inhibitor III (Cat. No. 2404-6, 25)