# Product information

## AKR1C3, 1-323aa

**Human, His-tagged, Recombinant, *E.coli***

**Cat. No. IBATGP0270**

**Full name:** Aldo-keto reductase family 1, member C3

**NCBI Accession No.:** NP_003730

**Synonyms:** DD3, DDX, HA1753, HAKRB, HAKRe, hluPGFS, HSD17B5

**Description:** AKR1C3, also known as PGFS, is a member of the aldo-keto reductase superfamily which catalyzes the conversion of aldehydes and ketones to their corresponding alcohols by utilizing NADH and/or NADPH as cofactors. This enzyme catalyzes the reduction of prostaglandin (PG) D2, PGH2 and phenanthrenequinone (PQ), and the oxidation of 9 alpha, 11 beta-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 differentiation. Recombinant human AKR1C3 protein, fused to His-tag at N-terminus, was expressed in *E.coli* and purified by using conventional chromatography techniques.

**Form:** Liquid. In 20mM Tris-HCl buffer (pH8.0) containing 10% glycerol

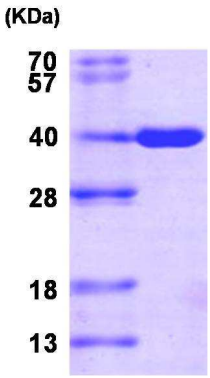
**Molecular Weight:** 39 kDa (343aa), confirmed by MALDI-TOF

**Purity:** > 95% by SDS - PAGE

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

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

**Biological activity:** Specific activity is > 1,000 pmol/min/ug, and is defined as the amount of enzyme that catalyze the oxidation of 1.0 pmole 1-Acenaphthenol in the presence of NADP per minute at pH 8.8 at 25C.



15% SDS-PAGE (3ug)

**Sequences of aminoacids:**

MGSSHHHHHH SSGLVPRGSH MDSKHQCVKL NDGHFMPVLG FGTYAPPEVP RSKALEVTKL AIEAGFRHID SAHLYNNEEQ VGLAIRSKIA DGSVKREDIF YTSKLWSTFH RPELVRPALE NSLKKAQLDY VDLYLIHSPM SLKPGEELSP TDENGKVIFD IVDLCTTWEA MEKCKDAGLA KSIGVSNFNR RQLEMILNKP GLKYKPVCNQ VECHPYFNRS KLLDFCKSKD IVLVAYSALG SQRDKRWVDP NSPVLLEDPV LCALAKKHKR TPALIALRYQ LQRGVVVLAK SYNEQRIRQN VQVFEFQLTA EDMKAIDGLD RNLHYFNSDS FASHPNYPYS DEY

**General references:**

Davies N., *et al*. (2009) *Cancer Res.* **69**(11):4769-75

Kabututu Z., *et al*. (2009) *J Biochem*. **145**(2):161-8

**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.



*Manufactured for:*
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