

## 32-2136: AKR1C3 Recombinant Protein

**Alternative Name :** DD3,DDX,HAKRB,HAKRe,HA1753,HSD17B5,fluPGFS,KIAA0119,AKR1C3,Aldo-keto reductase family 1 member C3,3-alpha-HSD type 2,17-beta-HSD 5,PGFS,DD-3.

### Description

Source : Escherichia Coli. AKR1C3 Human Recombinant fused to 20 amino acid His Tag at N-terminal produced in E.Coli is a single, non-glycosylated, polypeptide chain containing 343 amino acids (1-323 a.a.) and having a molecular mass of 39 kDa. The AKR1C3 is purified by proprietary chromatographic techniques. AKR1C3 is part of the aldo/keto reductase superfamily, which has at least 40 identified proteins. AKR1C3 catalyzes the conversion of aldehydes and ketones to their corresponding alcohols by utilizing NADH and/or NADPH as cofactors. AKR1C3 displays overlapping but distinct substrate specificity. AKR1C3 catalyzes the reduction of prostaglandin (PG) D<sub>2</sub>, PGH<sub>2</sub> and phenanthrenequinone (PQ), and the oxidation of 9 $\alpha$ ,11 $\beta$ -PGF<sub>2</sub> to PGD<sub>2</sub>. AKR1C3 is involved in the pathogenesis of allergic diseases such as asthma. AKR1C3 controls cell growth and/or differentiation. AKR1C3, having ability to convert androstenedione to testosterone, itakes part in adrenal testosterone production. AKR1C3 expression is affected by metabolic disease, and its levels are considerably reduced in response to diet-induced weight loss and correlate with leptin levels.

### Product Info

**Amount :** 20  $\mu$ g  
**Purification :** Greater than 95.0% as determined by SDS-PAGE.  
**Content :** The AKR1C3 solution contains 20mM Tris-HCl pH-8 and 10% glycerol.  
**Storage condition :** AKR1C3 Recombinant Human although stable at 4°C for 30 days, should be stored desiccated below -20°C for periods greater than 30 days. Please avoid freeze-thaw cycles.  
**Amino Acid :** MGSSHHHHHH SSGLVPRGSH MDSKHQCVKL NDGHFMPVLG FGTYAPPEVP RSKALEVTKL AIEAGFRHID SAHLYNNEEQ VGLAIRSKIA DGSVKREDIF YTSKLVSTFH RPELVPALE NSLKKAQLDY VDLYLIHSPM SLKPGEELSP TDENGKVIDF IVDLCTTWEA MEKCKDAGLA KSIGVSNFNR RQLEMILNKPGLKYKPVCNQ VECHPYFNRS KLLDFCKSKD IVLVAYSALG SQRDKRWVDP NSPVLLEDPV LCALAKKHKR TPALIALRYQ LQRGVVVLAK SYNEQRIRQN VQVFEFQLTA EDMKAIDGLD RNLHYFNSDS FASHPNYPYS DEY.

### Application Note

Specific activity: approximately 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.

