

# Product information

## AKR1D1, 1-326aa

Human, Recombinant, *E.coli*

Cat. No. IBATGP3292

NCBI Accession No.: NP\_005980

Synonyms: 3o5bred, CBAS2, SRD5B1

**Description:** AKR1D1 also known as 3-oxo-5beta-steroid 4-dehydrogenase isoform 1, is a member of the AKR superfamily. The AKR family of proteins are soluble NADPH oxidoreductases. They play important roles in the metabolism of drugs, carcinogens and reactive aldehydes. AKR1D1 is responsible for the catalysis of the 5-beta-reduction of bile acid intermediates and steroid hormones which carry a delta (4)-3-one structure. AKR1D1 is highly expressed in liver, colon and testis. Deficiency of this enzyme may contribute to hepatic dysfunction. Recombinant AKR1D1 protein was expressed in *E.coli* and purified by using conventional chromatography techniques.

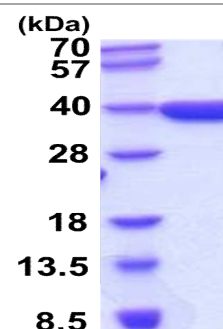
**Form:** Liquid. In 20mM Tris-HCl buffer (pH 8.5) containing 1mM DTT, 0.1M NaCl, 10% glycerol

**Molecular Weight:** 37.3 kDa (326aa)

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

**Concentration:** 1mg/ml (determined by Absorbance at 280nm)

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



15% SDS-PAGE (3µg)

### Sequences of amino acids:

MDLSAASHRI PLSDGNSIP I LGLTYSEPK STPKGACATS VKVAIDTGYR HIDGAYIYQN EHEVGEAIRE KIAEGKVRRE DIFYCGKLWA  
 TNHVPMEVRP TLERTLRVLQ LDYVDLYIIE VPMFAKPGDE IYPRDENGKW LYHKSNLGAT WEAMEACKDA GLVKS LGVSN FNRRQLELIL  
 NKPGLKHKPV SNQVECHPYF TQPKLLKFCQ QHDIVITAYS PLGTSRNP I W VNVSSPPLLK DALLNSLGKR YNK TAAQIVL RFNIQRGVVV  
 IPKSFNLERI KENFQIFDFS LTEEEMKDIE ALNKNVRFVE LLMWRDHPEY PFHDEY

### General references:

Moore S A., *et al.* (1995) *J Mol Biol.* 249(1):195-214

Gould S J., *et al.* (1988) *Anal Biochem.* 175(1):5-13

**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.

For research use only. This product is not intended or approved for human, diagnostics or veterinary use.