# **PRODUCT INFORMATION**

**Expression system** E.coli

**Domain** 39-316aa

**UniProt No.** Q96NR8

NCBI Accession No. NP\_689656.2

Alternative Names Retinol dehydrogenase 12, LCA13, LCA3, SDR7C2

# **PRODUCT SPECIFICATION**

Molecular Weight 33.5 kDa (303aa) confirmed by MALDI-TOF

**Concentration** 0.25mg/ml (determined by Bradford assay)

**Formulation** Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 2mM DTT, 40% glycerol, 0.2M NaCl

**Purity** > 90% by SDS-PAGE

**Tag** His-Tag

Application SDS-PAGE

## **Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

## Description

Retinol dehydrogenase 12, also known as RDH12, belongs to the short-chain dehydrogenases /reductases (SDR) family. RDH12 is expressed, mostly in eye, kidney, brain, skeletal muscle and stomach. It is an NADPH-dependent retinal reductase whose highest activity is toward 9-cis and all-trans-retinol. RDH12 also plays a role in the metabolism of short-chain aldehydes but does not exhibit steroid dehydrogenase activity. Recombinant human RDH12 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.



#### **Amino acid Sequence**

<MGSSHHHHHH SSGLVPRGSH MGSHM>GKVVV ITGANTGIGK ETARELASRG ARVYIACRDV LKGESAASEI RVDTKNSQVL VRKLDLSDTK SIRAFAEGFL AEEKQLHILI NNAGVMMCPY SKTADGFETH LGVNHLGHFL LTYLLLERLK VSAPARVVNV SSVAHHIGKI PFHDLQSEKR YSRGFAYCHS KLANVLFTRE LAKRLQGTGV TTYAVHPGVV RSELVRHSSL LCLLWRLFSP FVKTAREGAQ TSLHCALAEG LEPLSGKYFS DCKRTWVSPR ARNNKTAERL WNVSCELLGI RWE

## **General References**

Maeda A., et al. (2006) J Biol Chem. 281:37697-37704. Keller B., et al. (2007) J Steroid Biochem Mol Biol. 104:190-194.

### DATA

#### **SDS-PAGE**



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

