

## 32-6728: DCXR Human, Bioactive

**Application :** Functional Assay

**Alternative Name :** DCR, HCR2, HCR11, KIDCR, P34H, SDR20C1, Dicarbonyl/L-Xylulose Reductase, EC=1.1.1.10, Carbonyl reductase II, Kidney dicarbonyl reductase, Sperm surface protein P34H.

### Description

Source: Escherichia Coli.

Sterile filtered colorless solution.

DCXR catalyzes the NADPH-dependent reduction of numerous pentoses, tetroses, trioses, alpha-dicarbonyl molecules and L-xylulose. DCXR takes part in the uronate cycle of glucose metabolism. DCXR participates in the water absorption and cellular osmoregulation in the proximal renal tubules by producing xylitol, an osmolyte, thus preventing osmolytic stress from occurring in the renal tubules.

DCXR Recombinant Human produced in E.Coli is a single, non-glycosylated polypeptide chain containing 264 amino acids (1-244 a.a.) and having a molecular mass of 28 kDa. The DCXR is fused to a 20 amino acids His-Tag at N-terminus and purified by proprietary chromatographic techniques.

### Product Info

**Amount :** 2 µg / 10 µg

**Purification :** Greater than 95.0% as determined by SDS-PAGE.

**Content :** The DCXR (0.5mg/ml) solution containing 20mM Tris-HCl buffer (pH 8.0), 1mM DTT, 20% glycerol and 50mM NaCl.

**Storage condition :** Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Avoid multiple freeze-thaw cycles.

**Amino Acid :** MGSSHHHHHH SSGLVPRGSH MELFLAGRRV LVTGAGKGIG RGTVQALHAT GARVVAVSRT  
QADLDSLVR CPGIEPVCVD LGDWEATERA LGSVGPVDLL VNNAAVALLQ PFLEVTKEAF DRSFEVNLRA  
VIQVSQIVAR GLIARGVPGA IVNVSSQCSQ RAVTNHSVYC STKGALDMLT KVMALGLPH KIRVNAVNP  
VVMTSMGQAT WSDPHKAKTM LNRIPLGKFA EVEHVVNAIL FLLSDRSGMT TGSTLPVEGG FWAC.

### Application Note

Specific activity is > 1,800 pmol/min/ug and is defined as the amount of enzyme that oxidize 1pmole of xylitol to L-xylulose per minute at pH 10.0 at 37C.