

AKR1B10, Human Recombinant

CATALOG #: 6339-100 100 µg
6339-1000 1 mg

ALTERNATE NAMES: Aldo-keto reductase family 1, member B10, AKR1B11, AKR1B12, ALDRLn, ARL-1, ARL1, HIS, HIS.

SOURCE: *E.Coli*

SEQUENCE: Amino acid residue 1-316 of human AKR1B10

PURITY: > 98% by SDS - PAGE

MOL. WEIGHT: ~36 kDa (His-tag at the C-terminus).

FORM: Liquid

FORMULATION: 1 mg/ml solution in 20 mM Tris-HCl buffer (pH 8.0) containing 50% Glycerol.

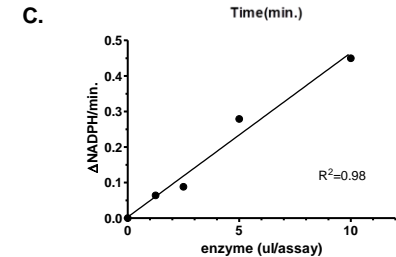
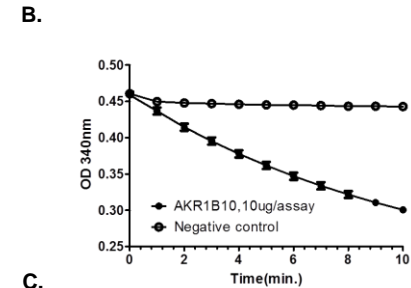
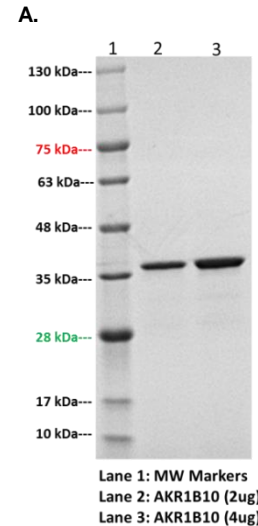
STORAGE CONDITIONS: Can be stored at 4 °C short term (1-2 weeks). For long term storage, aliquot and store at -20 °C or -70 °C. Avoid repeated freezing and thawing cycles.

DESCRIPTION: AKR1B10 is a monomeric protein that efficiently catalyzes the reduction of aromatic and aliphatic aldehydes and ketones. AKR1B10 is ubiquitously expressed in many human tissues but is highly expressed in small intestine, colon and adrenal gland. This protein is pathogenically involved in diabetic complications. It has been reported that AKR1B10 is overexpressed in human tumors, such as liver, breast, and lung cancer, and may play a critical role in the development and progression of cancer.

BIOLOGICAL ACTIVITY: The specific activity of AKR1B10 with 5 mM glyceraldehyde is approximately ~100 mU/mg. (Specific activity is calculated by the decrease of absorption at 340 nm in presence of 2-10 µg AKR1B10, 5mM glyceraldehyde, 200 µM NADPH in 0.1 M sodium phosphate buffer, pH 7.5).

UNIT DEFINITION: One unit is the amount of enzyme that oxidizes 1.0 µmole of NADPH to NADP+ per min. at pH 7.5 at 25°C.

FOR RESEARCH USE ONLY! Not to be used in humans.



- A) **SDS-PAGE (4-20%) of Recombinant Human AKR1B10:** Recombinant AKR1B10 Protein loaded under reducing conditions and stained with Coomassie Blue. The protein has a predicted MW of ~36 kDa.
- B) **Activity of Recombinant Human AKR1B10:** AKR1B10 shows decrease in absorption with time at 340 nm in presence of 5 mM glyceraldehyde.
- C) AKR1B10 (1 µg/µl) oxidizes NADPH to NADP+ at pH 7.5 at 25 °C per min.

RELATED PRODUCTS:

- Aldehyde Dehydrogenase Activity Colorimetric Assay kit (Cat. No. K731-100)
- PicoProbe™ Aldehyde Dehydrogenase Activity Assay kit (Cat. No. K741-100)
- Human recombinant ALDH2 (Cat. No. 6332-100)
- Human recombinant ALDH3A1 (Cat. No. 6333-50)
- Human recombinant AKR7A3 (Cat. No. 6334-50)
- Human recombinant AKR7A2 (Cat. No. 6335-50)
- Human recombinant AKR1C1 (Cat. No. 6336-50)
- Human recombinant AKR1C3 (Cat. No. 6337-50)
- Human recombinant AKR1C4 (Cat. No. 6338-50)

