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# Polyclonal Antibody to Aldo-keto reductase family 1 member B10 (AKR1B10)

**Catalog No** : **IMX-5264**
**Formulation** : 100 ul of crude rabbit sera with 50% glycerol and 0.025% sodium azide
**Isotype** : Rabbit Ig
**Clone** : NA
**Purification** : Crude rabbit sera
**Species React** : Human
**Predicted React** : Mouse, Rat, Chimpanzee, Bovine
**Host** : Rabbit

**Application**
Peptide ELISA: 1:100-1:1000

**Storage**
Store at -20°C.

**Recommended Positive Control:** Yet to be identified

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**Background**
Imgenex s IMX line of antibodies are ELISA positive samples that are still undergoing R&D testing. Available testing data will be listed under the Applications section.
Principal Names: ARL1; Aldose reductase like; Human small intestine reductase; HIS reductase; AKR1B11; AKR1B12; MGC14103 Aldo-Keto reductase family 1, member 10; Official Gene Symbol- AKR1B10 Gene ID- 57016 Gene Map Locus- 7q33 ARK1B10 is a NADPH-dependant enzyme with an ability to efficiently reduce aliphatic and aromatic aldehydes. A 316 A.A protein, AKR1B10 is a highly efficient retinal reductase constituting the first cytosolic NADP (H)-dependent retinal reductase described in humans and is characterized by the presence of a novel NADP binding motif. Due to its ability to convert glucose to sorbitol, AKR1B10 may have a role in development of secondary diabetic complications. It is abundantly expressed in adrenal gland, small intestine and colon, with lower levels in liver, thymus, prostate, testis, and skeletal muscle and its levels are up regulated in certain cancers such as hepatocellular carcinoma.

**Antigen**
Amino acids 60-73 (QEKIQEKAVKREDL) of human AKR1B10 protein were used as the immunogen.

**Application Notes**
The NCBI accession number for AKR1B10 is NM_020299. The amino acid sequence used as immunogen is 100% homologous in human, chimp and mouse (B10), 92% homologous in bovine, and 85% homologous in mouse (B7 and B8) and rat.

**Genebank Info (Protein)**
NP_064695

**Genebank Info (Nucleotide)**
NP_064695

**Reference**
**1.** Crosas,B., Hyndman,D.J., Gallego,O., Martras,S., Pares,X., Flynn,T.G. and Farres,J. Human aldose reductase and human small intestine aldose reductase are efficient retinal reductases: consequences for retinoid metabolism. Biochem. J. 373 (PT 3), 973-979 (2003).
**2.** Petrovic,M.G., Peterlin,B., Hawlina,M. and Petrovic,D. Aldose reductase (AC)n gene polymorphism and susceptibility to diabetic retinopathy in Type 2 diabetes in Caucasians. J. Diabetes Complicat. 19 (2), 70-73 (2005).
**3.** Cao, D et.al *J. Biol. Chem.* 273: 11429-11435 (1998)
**4.** Scuric, Z et.al *Hepatology* 27, 943 950 (1998)