Recombinant Human AKR1A1 Protein (His tag)

Cat.NO.: TP06243

3th Edition

Synonyms:ALDR1;ALR;ARM;DD3;HEL-S-6

Description: Aldehyde reductase (AKR1A1) is a member of the aldo-keto reductase superfamily, which consists of more than 40 known enzymes and proteins that includes variety of monomeric NADPH-dependent oxidoreductases, such as aldehyde reductase. Aldehyde reductase has wide substrate specificities for carbonyl compounds. These enzymes are implicated in the development of diabetic complications by catalyzing the reduction of glucose to sorbitol. Aldehyde reductase possess a structure with a beta-alpha-beta fold which contains a novel NADP-binding motif. The binding site is located in a large, deep, elliptical pocket in the C-terminal end of the beta sheet, the substrate being bound in an extended conformation. This binding is more similar to FAD- than to NAD(P)-binding oxidoreductases. AKR1A1 is involved in the reduction of biogenic and xenobiotic aldehydes and is present in virtually every tissue.

Form:PBS

Molecular Weight:39 kDa

Sequences: Met 1-Tyr 325

Purity:> 95% by HPLC

Concentration:

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

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.