Recombinant AKCL2 protein (His tag)

Catalog Number	541015
Synonyms	AF reductase; Aldo-keto reductase family 1 member C-like protein 2; Aldo-keto reductase family 1 member E2; LoopADR; Testis aldo-keto reductase; htAKR; Testis-specific protein; hTSP
Species	Human
Expression System	E. coli
Accession	Q96JD6
Molecular Weight	Predictes a molecular mass of 38.24 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 38 kDa band.

Product Information

Sequence Region	1-320
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-320 aa (Q96JD6) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human 1,5-anhydro-D-fructose reductase (AF reductase) fragment (residues 1-320) is a high-purity protein designed for structural and functional studies. This soluble fragment retains key catalytic domains, enabling research into its NADPH-dependent reductase activity and role in metabolic pathways. The full-length 1,5-anhydro-D-fructose reductase (AF reductase), encoded by the AKR1E2 gene in Homo sapiens, catalyzes the NADPH-dependent reduction of 1,5-anhydro-D-fructose to 1,5-anhydro-D-glucitol. It also exhibits low reductase activity toward 9,10-phenanthrenequinone in vitro, as supported by experimental evidence. The protein is localized in the cytoplasm, where it contributes to cellular redox metabolism. This recombinant fragment (residues 1-320) encompasses the complete functional domain, providing a stable and soluble unit ideal for biochemical assays, structural analysis, and enzyme kinetics investigations.