Recombinant DHDH protein (His tag)

Catalog Number	549958
Synonyms	D-xylose 1-dehydrogenase; D-xylose-NADP dehydrogenase; Dimeric dihydrodiol dehydrogenase; Hum2DD
Species	Human
Expression System	E. coli
Accession	Q9UQ10
Molecular Weight	Predictes a molecular mass of 38.04 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 38 kDa band.

Product Information

Sequence Region	1-334
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 1-334 aa (Q9UQ10) 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 Trans-1,2-dihydrobenzene-1,2-diol dehydrogenase (DHDH) fragment (amino acids 1-334), a highly purified protein preparation ideal for structural biology and enzymatic studies. This fragment represents a computationally optimized, stable domain that maintains key functional characteristics while offering enhanced solubility for research applications. Trans-1,2-dihydrobenzene-1,2-diol dehydrogenase (EC 1.3.1.20), also known as D-xylose 1-dehydrogenase (EC 1.1.1.179) and dimeric dihydrodiol dehydrogenase (Hum2DD), is encoded by the DHDH gene in Homo sapiens. This enzyme exhibits dual catalytic activities, functioning both in the oxidation of trans-dihydrodiols derived from aromatic compounds and in the NADP-dependent oxidation of D-xylose. The protein exists as a dimeric form and plays important roles in metabolic pathways involving sugar metabolism and potential xenobiotic compound processing.