Recombinant RDH11 protein (His tag)

Catalog Number	547799
Synonyms	Androgen-regulated short-chain dehydrogenase/reductase 1; HCV core-binding protein HCBP12; Prostate short-chain dehydrogenase/reductase 1; Retinal reductase 1; RalR1; Short chain dehydrogenase/reductase family 7C member 1
Species	Human
Expression System	E. coli
Accession	Q8TC12
Molecular Weight	Predictes a molecular mass of 34.61 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 35 kDa band.

Product Information

Sequence Region	22-318
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 22-318 aa (Q8TC12) 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 Retinol Dehydrogenase 11 (RDH11) Fragment (aa 22-318) - A highly purified, stable protein fragment ideal for studying retinol metabolism and dehydrogenase activity. This 297-amino acid construct maintains the enzyme's catalytic function while offering enhanced solubility for structural and biochemical research applications. Retinol Dehydrogenase 11 (RDH11) is a NADP-dependent enzyme that plays a crucial role in retinoid metabolism, demonstrating high catalytic activity toward various retinol isomers including 9-cis, 11-cis, and all-trans-retinol. The enzyme also exhibits limited reductive activity toward unsaturated medium-chain aldehydes but shows no dehydrogenase activity toward steroids. RDH11 is localized to the endoplasmic reticulum membrane as a single-pass type II membrane protein, positioning it strategically for its role in cellular retinol processing. Also known as androgen-regulated short-chain dehydrogenase/reductase 1 and prostate short-chain dehydrogenase/reductase 1, this enzyme represents an important component of the cellular machinery responsible for vitamin A metabolism and visual cycle regulation.