# Recombinant RDH5 protein (His tag)

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| **Catalog Number** | 540907 |
| **Synonyms** | 11-cis retinol dehydrogenase; 11-cis RDH; 11-cis RoDH; 9-cis retinol dehydrogenase; 9cRDH; Short chain dehydrogenase/reductase family 9C member 5 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q92781 |
| **Molecular Weight** | Predictes a molecular mass of 30.83 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 31 kDa band. |

## Product Information

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| **Sequence Region** | 22-288 |
| **Form** | Lyophilized powder |
| **Formulation** | Lyophilized from sterile PBS, pH 7.4 |
| **Purity** | >90%, 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 22-288 aa (Q92781) were fused with 6His tag. |

## Storage & Handling

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| **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.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Recombinant Retinol dehydrogenase 5 (RDH5) fragment (residues 22-288) from Homo sapiens, engineered for stability and solubility. This product supports research into NAD-dependent oxidation of cis-retinols and steroid substrates, ideal for structural and biochemical studies.<br>Retinol dehydrogenase 5 (RDH5) is a multi-pass membrane protein localized to the endoplasmic reticulum lumen, where it catalyzes the NAD-dependent oxidation of cis-retinol isomers, including 11-cis-, 9-cis-, and 13-cis-retinol. It plays a critical role in the visual cycle by oxidizing 11-cis retinol in retinal pigment epithelium cells and also metabolizes steroids such as androsterone and androstanediol, but lacks activity toward all-trans retinal. This enzyme is essential for understanding retinoid metabolism and steroid-related pathways in human physiology. |