Recombinant ADH7 protein (His tag)

Catalog Number	546956
Synonyms	+; Alcohol dehydrogenase class 4 mu/sigma chain; Alcohol dehydrogenase class IV mu/sigma chain; Gastric alcohol dehydrogenase; Omega-hydroxydecanoate dehydrogenase ADH7; Retinol dehydrogenase
Species	Human
Expression System	E. coli
Accession	P40394
Molecular Weight	Predictes a molecular mass of 43.14 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 43 kDa band.

Product Information

Sequence Region	1-386
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 1-386 aa (P40394) 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 ADH7 Protein (1-386) - A high-quality, stable fragment of All-trans-retinol dehydrogenase [NAD(+)] ADH7, designed for structural and biochemical studies of retinoid metabolism and alcohol dehydrogenase function. ADH7 (Alcohol dehydrogenase class 4 mu/sigma chain) is a cytoplasmic enzyme that catalyzes the NAD-dependent oxidation of all-trans-retinol, alcohols, and omega-hydroxy fatty acids, while also performing NADH-dependent reduction of aldehydes and retinoids. This enzyme demonstrates preferential activity toward all-trans-retinol, 9-cis-retinol, long-chain omega-hydroxy fatty acids, and various aldehydes. Functioning with higher efficiency in the oxidative direction, ADH7 plays crucial roles in retinoid metabolism, fatty acid omega-oxidation pathways, and the elimination of cytotoxic aldehydes generated through lipid peroxidation processes, making it an important target for metabolic and toxicological research.