Recombinant AL3A2 protein (His tag)

Catalog Number	537808
Synonyms	Aldehyde dehydrogenase 10; Fatty aldehyde dehydrogenase; Microsomal aldehyde dehydrogenase
Species	Human
Expression System	E. coli
Accession	P51648
Molecular Weight	Predictes a molecular mass of 54.14 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 55 kDa band.

Product Information

Sequence Region	1-463
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 1-463 aa (P51648) 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 Aldehyde dehydrogenase family 3 member A2 (ALDH3A2) fragment (residues 1-463) is a high-purity protein designed for structural and biochemical studies. This fragment, derived from human microsomal aldehyde dehydrogenase, retains catalytic activity and solubility, enabling reliable investigation of fatty aldehyde oxidation mechanisms. ALDH3A2, also known as fatty aldehyde dehydrogenase, is a membrane-associated enzyme localized to the endoplasmic reticulum and microsomes. It catalyzes the oxidation of medium to long-chain aliphatic aldehydes (C6-C24), including saturated and unsaturated forms, into corresponding fatty acids. A key physiological role involves converting hexadecenal—a sphingosine 1-phosphate metabolite—to hexadecenoic acid, linking it to sphingolipid metabolism and cellular homeostasis. The full-length protein is embedded in membranes via a single-pass topology, with its catalytic domain oriented toward the cytoplasm.