Recombinant GALM protein (His tag)

Catalog Number	540956
Synonyms	Aldose 1-epimerase
Species	Human
Expression System	E. coli
Accession	Q96C23
Molecular Weight	Predictes a molecular mass of 39.29 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 39 kDa band.

Product Information

Sequence Region	2-342
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 2-342 aa (Q96C23) 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	This recombinant protein product features a stable and soluble fragment (residues 2-342) of human Galactose mutarotase (EC 5.1.3.3), also known as Aldose 1-epimerase, encoded by the GALM gene. The fragment is designed for structural and biochemical studies, supporting research into galactose metabolism and enzyme function. Galactose mutarotase (EC 5.1.3.3) is a key enzyme in galactose metabolism, catalyzing the interconversion of beta-D-galactose and alpha-D-galactose. It plays a critical role in the Leloir pathway, which converts galactose into glucose 1-phosphate for energy production in the liver. By maintaining the equilibrium between galactose anomers, GALM ensures a sufficient supply of the alpha-anomer for downstream metabolism via galactokinase (GALK1). Although it shows a preference for galactose, the enzyme is also active on D-glucose. GALM is localized in the cytoplasm, where it contributes to cellular metabolic processes.