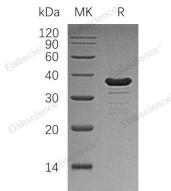
Recombinant Human GALE Protein (His Tag)

Catalog Number: PKSH033193

Note: Centrifuge before opening to ensure complete recovery of vial contents.

| Description | |
|---------------------|---|
| Species | Human |
| Source | E.coli-derived Human GALE protein Met 1-Ala348, with an N-terminal His |
| Calculated MW | 40.4 kDa |
| Observed MW | 35 kDa |
| Accession | Q14376 |
| Bio-activity | Not validated for activity |
| Properties | |
| Purity | > 95 % as determined by reducing SDS-PAGE. |
| Concentration | Subject to label value. |
| Endotoxin | < 1.0 EU per µg of the protein as determined by the LAL method. |
| Storage | Store at $< -20^{\circ}$ C, stable for 6 months. Please minimize freeze-thaw cycles. |
| Shipping | This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel |
| | packs. Upon receipt, store it immediately at $< -20^{\circ}$ C. |
| Formulation | Supplied as a 0.2 µm filtered solution of 50mM Tris-HCl, 150mM NaCl, 2mM DTT, |
| | 1mM EDTA, pH 8.0. |
| Data | |
| LiD- | |



> 95 % as determined by reducing SDS-PAGE.

Background

The enzyme UDP-Glucose 4-Epimerase (GALE) is a homodimeric epimerase found in bacterial, plant and mammalian cells. UDP-Glucose 4-Epimerase performs the final step in the Leloir pathway of Galactose metabolism, it catalyzes two distinct but analogous reactions: the epimerization of UDP-Gglucose to UDP-Galactose and the epimerization of UDP-N-Acetylglucosamine to UDP-N-Acetylgalactosamine. The bifunctional nature of the enzyme has the important metabolic consequence that mutant cells (or individuals) are dependent not only on exogenous galactose, but also on exogenous N-acetylgalactosamine as a necessary precursor for the synthesis of glycoproteins and glycolipids.