

## Recombinant Human GALE Protein (His Tag)

**Catalog Number: PKSH033193**

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

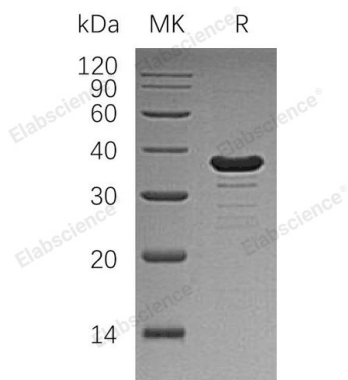
### Description

|                      |  |
|----------------------|--|
| <b>Species</b>       | Human  |
| <b>Source</b>        | E.coli-derived Human GALE protein Met 1-Ala348, with an N-terminal His |
| <b>Calculated MW</b> | 40.4 kDa   |
| <b>Observed MW</b>   | 35 kDa   |
| <b>Accession</b>     | Q14376   |
| <b>Bio-activity</b>  | Not validated for activity   |

### Properties

|                      |  |
|----------------------|--|
| <b>Purity</b>        | > 95 % as determined by reducing SDS-PAGE.   |
| <b>Concentration</b> | Subject to label value.  |
| <b>Endotoxin</b>     | < 1.0 EU per µg of the protein as determined by the LAL method.  |
| <b>Storage</b>       | Store at < -20°C, stable for 6 months. Please minimize freeze-thaw cycles.   |
| <b>Shipping</b>      | This product is provided as liquid. It is shipped at frozen temperature with blue ice/gel packs. Upon receipt, store it immediately at < - 20°C. |
| <b>Formulation</b>   | Supplied as a 0.2 µm filtered solution of 50mM Tris-HCl, 150mM NaCl, 2mM DTT, 1mM EDTA, pH 8.0.  |

### Data



> 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.