

## Recombinant Human GALE Protein (His Tag)

**Catalog No.** PKSH033193

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

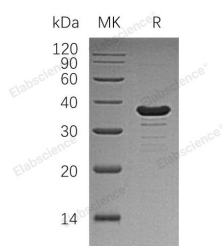
### Description

<b>Synonyms</b>	UDP-Glucose 4-Epimerase;Galactowaldenase;UDP-Galactose 4-Epimerase;GALE
<b>Species</b>	Human
<b>Expression Host</b>	E.coli
<b>Sequence</b>	Met 1-Ala348
<b>Accession</b>	Q14376
<b>Calculated Molecular Weight</b>	40.4 kDa
<b>Observed molecular weight</b>	35 kDa
<b>Tag</b>	N-His
<b>Bioactivity</b>	Not validated for activity

### Properties

<b>Purity</b>	> 95 % as determined by reducing SDS-PAGE.
<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.
<b>Reconstitution</b>	Not Applicable

### 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-

### For Research Use Only

acetylgalactosamine as a necessary precursor for the synthesis of glycoproteins and glycolipids.