



Recombinant Protein Technical Manual

Recombinant Human GALE Protein (His Tag)

RPES2211

Product Data:

Product SKU: RPES2211

Size: 10µg

Species: Human

Expression host: E. coli

Uniprot: Q14376

Protein Information:

Molecular Mass: 40.4 kDa

AP Molecular Mass: 35 kDa

Tag: N-6His

Bio-activity:

Purity: > 95 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: Store at < -20°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°C.

Formulation: Supplied as a 0.2 µm filtered solution of 50mM TrisHCl, 150mM NaCl, 2mM DTT, 1mM EDTA, pH 8.0.

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: UDP-Glucose 4-Epimerase; Galactowaldenase; UDP-Galactose 4-Epimerase; GALE

Immunogen Information:

Sequence: Met 1-Ala348

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-Glucose 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.