

Recombinant Human GALE Protein, His-tagged

Cat. No. GALE-151H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human GALE, transcript variant 1, fused with His tag at C-terminal was expressed in E. coli.
Species	Human
Source	E.coli
Description	This gene encodes UDP-galactose-4-epimerase which 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. Mutations in this gene result in epimerase-deficiency galactosemia, also referred to as galactosemia type 3, a disease characterized by liver damage, early-onset cataracts, deafness and mental retardation, with symptoms ranging from mild ('peripheral' form) to severe ('generalized' form). Multiple alternatively spliced transcripts encoding the same protein have been identified.
Form	50mM Tris-HCl, 150mM NaCl, 2mM DTT, 1mM EDTA, pH 8.0.
Molecular Mass	40.4 kDa
Endotoxin	< 0.1 EU per µg protein as determined by LAL test

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Purity	>95% as determined by SDS-PAGE and Coomassie blue staining
Storage	Avoid repeated freeze-thaw cycles. Stable for at least 3 months from receipt of products under proper storage and handling conditions.
Concentration	>50 ug/mL as determined by microplate BCA method
GENE INFORMATION	
Gene Name	GALE UDP-galactose-4-epimerase [Homo sapiens]
Official Symbol	GALE
Synonyms	GALE; UDP-galactose-4-epimerase; galactose 4 epimerase, UDP; UDP-glucose 4-epimerase; SDR1E1; short chain dehydrogenase/reductase family 1E; member 1; UDP glucose 4 epimerase; galactowaldenase; UDP-galactose 4-epimerase; UDP galactose-4-epimerase; galactose-4-epimerase, UDP-; short chain dehydrogenase/reductase family 1E, member 1; FLJ95174; FLJ97302;
Gene ID	2582
mRNA Refseq	NM_000403
Protein Refseq	NP_000394
MIM	606953
UniProt ID	Q14376