

## Product datasheet for **TP308709M**

### GALE (NM\_001008216) Human Recombinant Protein

#### Product data:

Product Type:	Recombinant Proteins
Description:	Recombinant protein of human UDP-galactose-4-epimerase (GALE), transcript variant 2, 100 µg
Species:	Human
Expression Host:	HEK293T
Expression cDNA Clone or AA Sequence:	>RC208709 protein sequence <b>Red</b> =Cloning site <b>Green</b> =Tags(s)
	<p>MAEKVLVTGGAGYIGSHTVLELLEAGYLPVIDNFHNAFRGGGSLPESLRRVQELTGRSVEFEEMDILDQ          GALQRLFKKYSFMAVIHFAGLKAVGESVQKPLDYRVNLTGTIQLLEIMKAHGKLNLFSSSATVYGNPQ          YLPLDEAHTGGCTNPYGKSKFFIEEMIRDLQCADKTWNAVLLRYFNPTGAHASGCIGEDPQGIPNNLMP          YVSQVAIGRREALNVFGNDYDTEGTGVRDYIHVVDLAKGHIAALRKLKEQCGCRIYNLGTGTGYSVLQM          VQAMEKASGKKIPYKVARREGDVAACYANPSLAQEELGWTAALGLDRMCEDLWRWQKQNPSGFGTQA</p> <p><b>TRTRPLEQKLISEEDLAANDILDYKDDDDKV</b></p>
Tag:	C-Myc/DDK
Predicted MW:	38.1 kDa
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol
Preparation:	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Note:	For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.
Storage:	Store at -80°C.
Stability:	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
RefSeq:	<a href="#">NP_001008217</a>
Locus ID:	2582



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UniProt ID: [Q14376](#), [A0A384NL38](#)

RefSeq Size: 1585

Cytogenetics: 1p36.11

RefSeq ORF: 1044

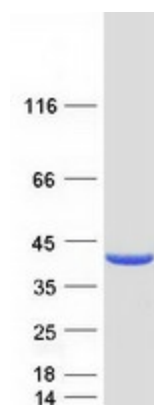
Synonyms: SDR1E1

**Summary:** 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 cognitive disability, with symptoms ranging from mild ('peripheral' form) to severe ('generalized' form). Multiple alternatively spliced transcripts encoding the same protein have been identified. [provided by RefSeq, Jul 2008]

**Protein Families:** Druggable Genome

**Protein Pathways:** Amino sugar and nucleotide sugar metabolism, Galactose metabolism, Metabolic pathways

### Product images:



Coomassie blue staining of purified GALE protein (Cat# [TP308709]). The protein was produced from HEK293T cells transfected with GALE cDNA clone (Cat# [RC208709]) using MegaTran 2.0 (Cat# [TT210002]).