

## Product datasheet for PH308709

### GALE (NM\_001008216) Human Mass Spec Standard

#### Product data:

Product Type:	Mass Spec Standards
Description:	GALE MS Standard C13 and N15-labeled recombinant protein (NP_001008217)
Species:	Human
Expression Host:	HEK293
Expression cDNA Clone or AA Sequence:	RC208709
Predicted MW:	38.3 kDa
Protein Sequence:	>RC208709 protein sequence Red=Cloning site Green=Tags(s)

MAEKVLVTGGAGYIGSHTVLELLEAGYLPVVIDNFHNAFRGGSLPESLRRVQELTGRSVEFEEMDILDQ  
GALQRLFKKYSFMAVIHFAGLKAVGESVQKPLDYRVNLTGTIQLLEIMKAHGKKNLVSSTATVYGNPQ  
YLPLDEAHPTGGCTNPYGKSKFFIEEMIRDLCQADKTWNAVLLRYFNPTGAHASGCIGEDPQGPNNLMP  
YVSQVAIGRREALNVFGNDYDTEGTGVRDYIHVVDLAKGHIAALRKLKEQCGRINLGTGTGYSVLQM  
VQAMEKASGKKIPYKVVARRREGDVAACYANPSLAQEELGWTAALGLDRMCEDLWRWQKQNPSTGFTQA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag:	C-Myc/DDK
Purity:	> 80% as determined by SDS-PAGE and Coomassie blue staining
Concentration:	>0.05 µg/µL as determined by microplate BCA method
Labeling Method:	Labeled with [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>4</sub> ]-L-Arginine and [U- <sup>13</sup> C <sub>6</sub> , <sup>15</sup> N <sub>2</sub> ]-L-Lysine
Buffer:	25 mM Tris-HCl, 100 mM glycine, pH 7.3
Storage:	Store at -80°C. Avoid repeated freeze-thaw cycles.
Stability:	Stable for 3 months from receipt of products under proper storage and handling conditions.
RefSeq:	<a href="#">NP_001008217</a>
RefSeq Size:	1585
RefSeq ORF:	1044
Synonyms:	SDR1E1
Locus ID:	2582



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

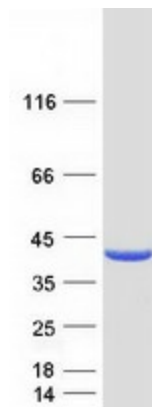
Cytogenetics: 1p36.11

**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]).