

Product Name: KD-Validated GALE Mouse Monoclonal Antibody**Catalog #: KVA00539**

For research use only.

Summary

Description	KO&KD-Validated antibody
Host	Mouse
Application	WB,FCM,ICC
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	Mouse IgG1
Clonality	Mouse mAb
Form	Liquid
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Supplied in PBS (pH 7.4) containing 50% glycerol, and 0.02% sodium azide.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2,500; FC 1:200-1:2,000; ICC 1:100-1:1,000
Molecular Weight	Calculated MW: 38.3kDa

Antigen Information

Gene Name	GALE
Alternative Names	GALE; UDP-Galactose-4-Epimerase; UDP-Glucose 4-Epimerase; SDR1E1; Short Chain Dehydrogenase/Reductase Family 1E, Member 1; UDP-N-Acetylgalactosamine 4-Epimerase; UDP-N-Acetylglucosamine 4-Epimerase; Galactose-4-Epimerase, UDP-; UDP-GalNAc 4-Epimerase; UDP-GlcNAc 4-Epimerase; Galactowaldenase; EC 5.1.3.2; Epididymis Secretory Sperm Binding Protein; UDP Galactose-4'-Epimerase; UDP-Galactose 4-Epimerase; EC 5.1.3.7; EC 5.1.3.47; THC13
Gene ID	2582.0
SwissProt ID	Q14376
Immunogen	Recombinant protein of human GALE

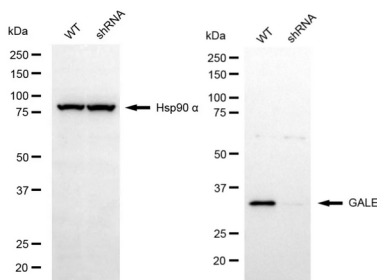
Background

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]

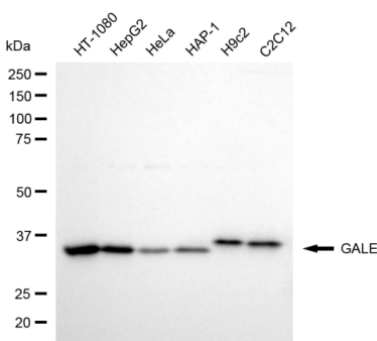
Research Area

Cancer

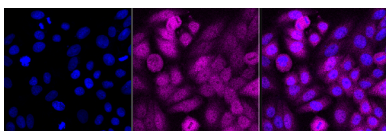
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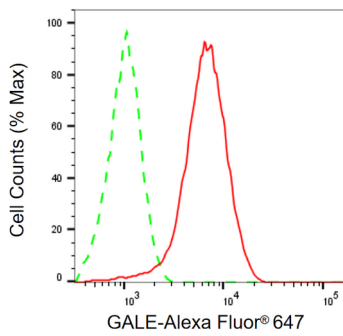
Western blotting analysis using GALE antibody (KVA00539). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with GALE antibody (KVA00539, 1:2,500) and HRP-conjugated goat anti-mouse secondary antibody (APS0631, 1:10,000) respectively.



Immunocytochemical staining of HepG2 cells with GALE antibody (KVA00539, 1:1,000). Nuclei were stained blue with DAPI; associated protein was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. GALE based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.



Immunocytochemical staining of HepG2 cells with GALE antibody (KVA00539, 1:1,000). Nuclei were stained blue with DAPI; associated protein was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. GALE based on laser Intensity and smart gain: Medium. Scale bar, 20 µm.



Flow cytometric analysis of GALE expression in HepG2 cells using GALE antibody (KVA00539, 1:2,000). Green, isotype control; red, GALE.