

**GALE Antibody (Center)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP6902c****Specification**

---

**GALE Antibody (Center) - Product Information**

Application	IF, WB, IHC-P, FC,E
Primary Accession	<a href="#">Q14376</a>
Other Accession	<a href="#">Q8R059</a> , <a href="#">Q3T105</a>
Reactivity	Human
Predicted	Bovine, Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	38282
Antigen Region	142-171

**GALE Antibody (Center) - Additional Information****Gene ID** 2582**Other Names**

UDP-glucose 4-epimerase, Galactowaldenase, UDP-N-acetylgalactosamine 4-epimerase, UDP-GalNAc 4-epimerase, UDP-N-acetylglucosamine 4-epimerase, UDP-GlcNAc 4-epimerase, UDP-galactose 4-epimerase, GALE ([HGNC:4116](http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=4116))

**Target/Specificity**

This GALE antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 142-171 amino acids from the Central region of human GALE.

**Dilution**

IF~~1:10~50  
WB~~1:1000  
IHC-P~~1:50~100  
FC~~1:10~50

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

GALE Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

## GALE Antibody (Center) - Protein Information

Name GALE ([HGNC:4116](#))

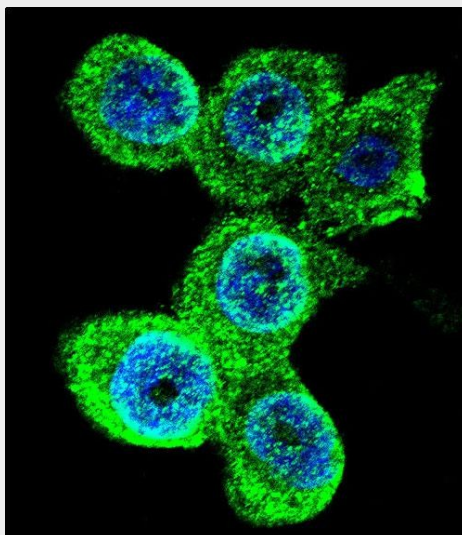
**Function** Catalyzes two distinct but analogous reactions: the reversible epimerization of UDP-glucose to UDP-galactose and the reversible epimerization of UDP-N-acetylglucosamine to UDP-N-acetylgalactosamine. The reaction with UDP-Gal plays a critical role in the Leloir pathway of galactose catabolism in which galactose is converted to the glycolytic intermediate glucose 6-phosphate. It contributes to the catabolism of dietary galactose and enables the endogenous biosynthesis of both UDP-Gal and UDP-GalNAc when exogenous sources are limited. Both UDP-sugar interconversions are important in the synthesis of glycoproteins and glycolipids.

## GALE Antibody (Center) - Protocols

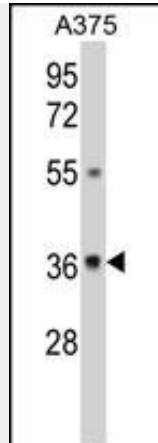
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

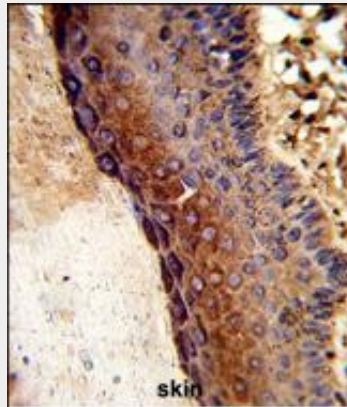
## GALE Antibody (Center) - Images



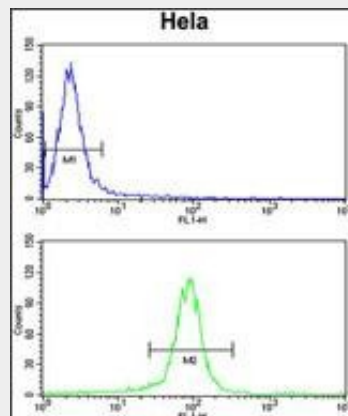
Confocal immunofluorescent analysis of GALE Antibody (Center)(Cat#AP6902c) with WiDr cell followed by Alexa Fluor 488-conjugated goat anti-rabbit IgG (green). DAPI was used to stain the cell nuclear (blue).



Western blot analysis of GALE Antibody (Center) (Cat. #AP6902c) in A375 cell line lysates (35ug/lane). GALE (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human skin tissue reacted with GALE Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



GALE Antibody (Center) (Cat.#AP6902c) flow cytometry analysis of HeLa cells (bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

### GALE Antibody (Center) - Background

UDP-galactose-4-epimerase 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.

#### **GALE Antibody (Center) - References**

Openo, K.K., et al., Am. J. Hum. Genet. 78 (1), 89-102 (2006)