

Rabbit GALE Polyclonal Antibody | anti-GALE antibody

Anti-GALE Picoband antibody

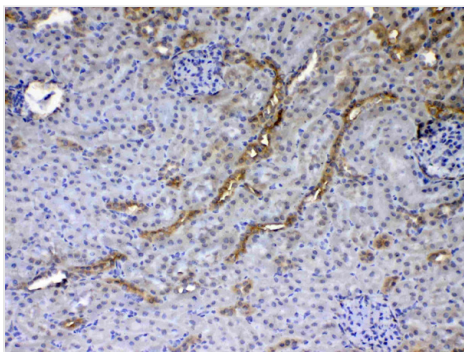
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA19135	Rabbit	Human, Mouse, Rat No cross reactivity with other proteins.	ELISA, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

GALE; Polyclonal Antibody; Anti-GALE Picoband antibody; UDP-glucose 4-epimerase; anti-GALE antibody

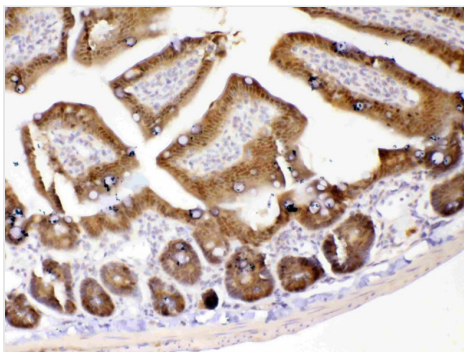
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat No cross reactivity with other proteins.
Clonality	Polyclonal
Form/Format	Lyophilized
Sequence Length	274
Applicable Applications for anti-GALE antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Application Notes	WB: 0.1-0.5µg/ml Immunohistochemistry (Paraffin-embedded Section): 0.5-1µg/ml Direct ELISA: 0.1-0.5µg/ml
Immunogen	E Coli-derived human GALE recombinant protein (Position: M1-N340).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Contents	Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



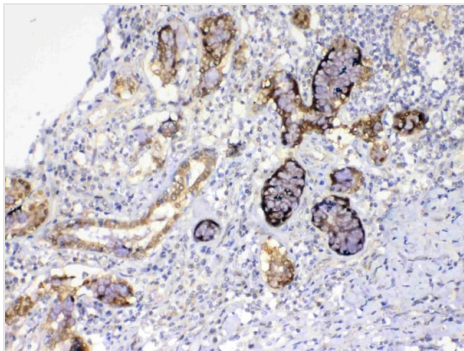
IHC (Immunohistochemistry)

Figure 6. IHC analysis of GALE using anti-GALE antibody (AAA19135).GALE was detected in paraffin-embedded section of rat kidney tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-GALE Antibody (AAA19135) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



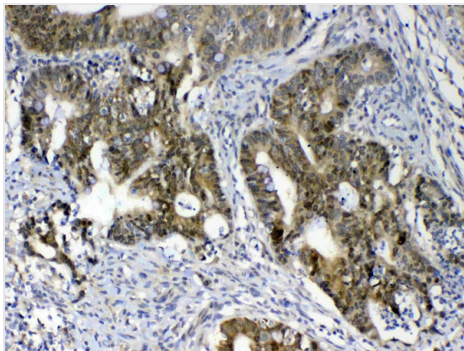
IHC (Immunohistochemistry)

Figure 5. IHC analysis of GALE using anti-GALE antibody (AAA19135).GALE was detected in paraffin-embedded section of mouse intestine tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-GALE Antibody (AAA19135) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



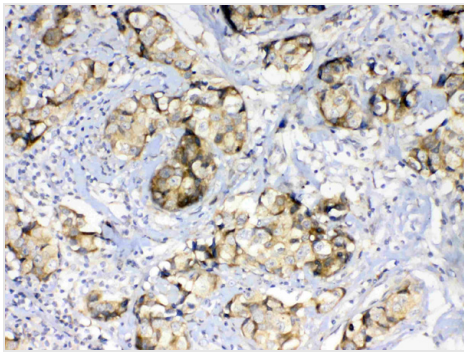
IHC (Immunohistochemistry)

Figure 4. IHC analysis of GALE using anti-GALE antibody (AAA19135).GALE was detected in paraffin-embedded section of human lung cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-GALE Antibody (AAA19135) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



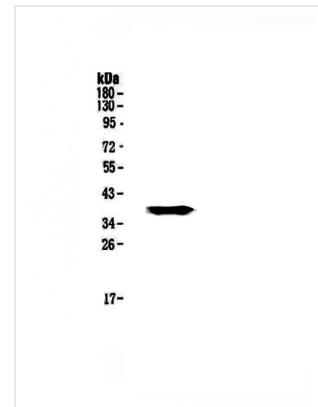
IHC (Immunohistochemistry)

Figure 3. IHC analysis of GALE using anti-GALE antibody (AAA19135).GALE was detected in paraffin-embedded section of human colon cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-GALE Antibody (AAA19135) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of GALE using anti-GALE antibody (AAA19135). GALE was detected in paraffin-embedded section of human mammary cancer tissue. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-GALE Antibody (AAA19135) overnight at 4 degree C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of GALE using anti-GALE antibody (AAA19135). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: rat liver tissue lysates. After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-GALE antigen affinity purified polyclonal antibody at 0.5ug/mL overnight at 4 degree C, then washed with TBS-0.1% Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for GALE at approximately 38KD. The expected band size for GALE is at 38KD.

ADDITIONAL INFORMATION

Related Product Information for anti-GALE antibody

Description: The enzyme UDP-glucose 4-epimerase, also known as UDP-galactose 4-epimerase or GALE, is a homodimeric epimerase found in bacterial, fungal, plant, and mammalian cells. 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.

Protein 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.

Product Categories/Family for anti-GALE antibody

Signal Transduction; Metabolism; Energy Metabolism; Cancer; Cancer Metabolism; Metabolic Signaling Pathway; Metabolism of Carbohydrates; Metabolism; Pathways and Processes; Metabolic Signaling Pathways; Carbohydrate Metabolism; energy transfer Pathways

NCBI AND UNIPROT INFORMATION

NCBI GI #	56237023
NCBI GeneID	2582
NCBI Accession #	NP_000394.2
NCBI GenBank Nucleotide #	NM_000403.3
UniProt Accession #	Q14376; Q38G75; Q86W41; Q9BVE3; Q9UJB4; A0A024RAH5; B3KQ39
Molecular Weight	30,180 Da

NCBI Official Full Name	UDP-glucose 4-epimerase
NCBI Official Synonym Full Names	UDP-galactose-4-epimerase
NCBI Official Symbol	GALE
NCBI Official Synonym Symbols	SDR1E1
NCBI Protein Information	UDP-glucose 4-epimerase
UniProt Protein Name	UDP-glucose 4-epimerase
UniProt Gene Name	GALE
UniProt Synonym Gene Names	UDP-GlcNAc 4-epimerase

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/gale-antibody-immunohistochemistry-western-blot-elisa/19135>