

### LALBA Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab) Catalog # AP14834c

### Specification

# LALBA Antibody (Center) - Product Information

Application	WB, IHC-P,E
Primary Accession	<u>P00709</u>
Other Accession	<u>NP_002280.1</u>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Antigen Region	39-68

# LALBA Antibody (Center) - Additional Information

Gene ID 3906

Other Names Alpha-lactalbumin, Lactose synthase B protein, Lysozyme-like protein 7, LALBA, LYZL7

Target/Specificity

This LALBA antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 39-68 amino acids from the Central region of human LALBA.

**Dilution** WB~~1:1000 IHC-P~~1:25

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

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

#### LALBA Antibody (Center) - Protein Information

Name LALBA

Synonyms LYZL7



**Function** Regulatory subunit of lactose synthase, changes the substrate specificity of galactosyltransferase in the mammary gland making glucose a good acceptor substrate for this enzyme. This enables LS to synthesize lactose, the major carbohydrate component of milk. In other tissues, galactosyltransferase transfers galactose onto the N- acetylglucosamine of the oligosaccharide chains in glycoproteins.

**Cellular Location** Secreted.

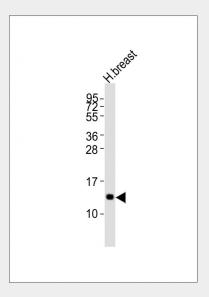
**Tissue Location** Mammary gland specific. Secreted in milk.

# LALBA Antibody (Center) - Protocols

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

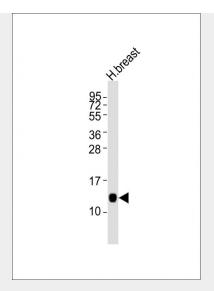
- <u>Western Blot</u>
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

#### LALBA Antibody (Center) - Images

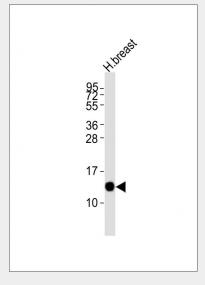


Anti-LALBA Antibody (Center) at 1:2000 dilution + human breast lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 16 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



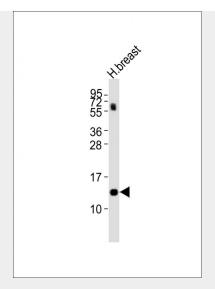


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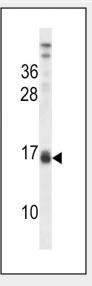


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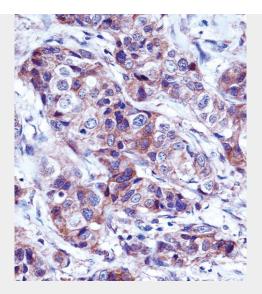


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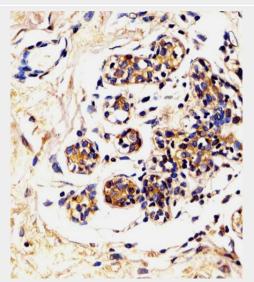


LALBA Antibody (Center) (Cat. #AP14834c) western blot analysis in CEM cell line lysates (35ug/lane).This demonstrates the LALBA antibody detected the LALBA protein (arrow).





LALBA Antibody (Center) (AP14834c)immunohistochemistry analysis in formalin fixed and paraffin embedded human breast carcinoma followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of LALBA Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



AP14834c staining LALBA in Human breast tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde and blocked with 3% BSA for 0. 5 hour at room temperature; antigen retrieval was by heat mediation with a citrate buffer (pH6). Samples were incubated with primary antibody (1/25) for 1 hours at 37°C. A undiluted biotinylated goat polyvalent antibody was used as the secondary antibody.

# LALBA Antibody (Center) - Background

This gene encodes alpha-lactalbumin, a principal protein of milk. Alpha-lactalbumin forms the regulatory subunit of the lactose synthase (LS) heterodimer and beta 1,4-galactosyltransferase (beta4Gal-T1) forms the catalytic component. Together, these proteins enable LS to produce lactose by transfering galactose moieties to glucose. As a monomer, alpha-lactalbumin strongly binds calcium and zinc ions and may possess bactericidal or antitumor activity. A folding variant of alpha-lactalbumin, called HAMLET, likely induces apoptosis in tumor



and immature cells.

### LALBA Antibody (Center) - References

Tolin, S., et al. FEBS J. 277(1):163-173(2010) Rosner, H.I., et al. J. Mol. Biol. 394(2):351-362(2009) Wang, J., et al. J. Dairy Sci. 91(12):4466-4476(2008) Ramboarina, S., et al. J. Am. Chem. Soc. 130(46):15318-15326(2008) Morozova, O.B., et al. J Phys Chem B 109(12):5912-5918(2005)