

## **Lactalbumin Antibody**

Purified Rabbit Polyclonal Antibody Catalog # ABV11646

### **Specification**

## **Lactalbumin Antibody - Product Information**

Application WB
Primary Accession P00709
Host Rabbit
Clonality Polyclonal
Isotype rabbit IgG
Calculated MW 16225

# **Lactalbumin Antibody - Additional Information**

**Gene ID 3906** 

**Other Names** 

Lactalbumin, Human Milk

**Target/Specificity** 

Lactalbumin

#### **Formulation**

100 μg (0.5 mg/ml) of antibody in PBS pH 7.2, 0.01 % BSA, 0.03 % ProClin®, and 50 % glycerol.

### Handling

The antibody solution should be gently mixed before use.

### **Background Descriptions**

### **Precautions**

Lactalbumin Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

# **Lactalbumin Antibody - 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.

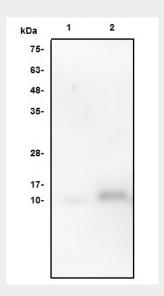
**Tissue Location**Mammary gland specific. Secreted in milk.

## **Lactalbumin Antibody - Protocols**

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

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

## Lactalbumin Antibody - Images



Western blot with human Lactalbumin antibody: Lane1: 10ug h Lactalbumin; Lane2: 50ug h Lactalbumin.

### **Lactalbumin Antibody - Background**

 $\alpha$ -Lactalbumin is an important whey protein in cow's milk, and is also present in the milk of many other mammalian species. In primates, alpha-lactalbumin expression is upregulated in response to the hormone prolactin and increases the production of lactose.  $\alpha$ -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 transferring galactose moieties to glucose. As a monomer, alpha-lactalbumin strongly binds calcium and zinc ions and may possess bactericidal or antitumor activity. When formed into a complex with Gal-T1, a galactosyltransferase,  $\alpha$ -lactalbumin, enhances the enzyme's affinity for glucose by about 1000 times, and inhibits the ability to polymerize multiple galactose units. This gives rise to a pathway for forming lactose by converting Gal-TI to Lactose synthase.