



# Lactalbumin, Human Milk recombinant protein

LYZL7

Catalog # PBV10910r

## **Specification**

#### Lactalbumin, Human Milk recombinant protein - Product info

Primary Accession P00709
Calculated MW 14 kDa KDa

## Lactalbumin, Human Milk recombinant protein - Additional Info

Gene ID 3906 Gene Symbol LYZL7

**Other Names** 

LYZL7

Gene Source Human

Source Human Milk. Prepared from Human Milk

shown to be non-reactive for HBsAg, anti-HCV, anti-HBc, and negative for anti-HIV 1 & 2 by FDA required tests.

Assay&Purity SDS-PAGE; ≥95%

Assay2&Purity2 N/A;
Recombinant No

**Target/Specificity** 

Lactalbumin

**Application Notes**Use deionized water

Format Lyophilized

**Storage** 

4°C; Lyophilized from de-ionized water

#### Lactalbumin, Human Milk recombinant protein - 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, Human Milk recombinant protein - Images

#### Lactalbumin, Human Milk recombinant protein - 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.

#### Lactalbumin, Human Milk recombinant protein - References

Hall L.,et al.Nucleic Acids Res. 10:3503-3515(1982).
Hall L.,et al.Biochem. J. 242:735-742(1987).
Fujiwara Y.,et al.Submitted (OCT-2000) to the EMBL/GenBank/DDBJ databases.
Halleck A.,et al.Submitted (JUN-2004) to the EMBL/GenBank/DDBJ databases.
Mural R.J.,et al.Submitted (JUL-2005) to the EMBL/GenBank/DDBJ databases.