

**Lactalbumin, Human Milk recombinant protein**  
**LYZL7**  
**Catalog # PBV10910r****Specification**

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**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. SDS-PAGE; ≥95%**  
Assay&Purity **N/A;**  
Assay2&Purity2 **No**  
Recombinant  
**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](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [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).  
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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.