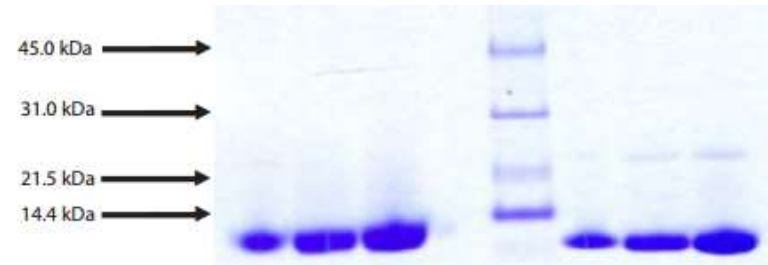


# Lactalbumin, Human Milk

<b>CATALOG #:</b>	7286-1000	1 mg
	7286-5000	5 mg
<b>ALTERNATE NAMES:</b>	LYZL7	
<b>SOURCE:</b>	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.	
<b>PURITY:</b>	≥ 95% by SDS-PAGE	
<b>MOL. WEIGHT:</b>	14 kDa	
<b>EXTINCTION COEFFICIENT:</b>	1.82	
<b>FORM:</b>	Lyophilized from de-ionized water	
<b>RECONSTITUTION:</b>	Deionized water	
<b>STORAGE CONDITIONS:</b>	Store at -20°C	

## DESCRIPTION:

$\alpha$ -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-T1 to Lactose synthase.



## Lactalbumin, Human Milk

4-12% Bis-Tris NuPAGE gel

1. Lactalbumin - 5  $\mu$ g (reduced / heated)
2. Lactalbumin - 10  $\mu$ g (reduced / heated)
3. Lactalbumin - 20  $\mu$ g (reduced / heated)
4. MW Standard
5. Lactalbumin - 5  $\mu$ g (non-reduced / no heat)
6. Lactalbumin - 10  $\mu$ g (non-reduced / no heat)
7. Lactalbumin - 20  $\mu$ g (non-reduced / no heat)

## RELATED PRODUCTS:

- Prolactin Antibody (Cat # 5688-100)
- Prolactin Antibody (Cat # 5689-100)
- Prolactin Receptor, human recombinant (Cat # 4989-20, -1000)
- Prolactin Receptor, rat recombinant (Cat # 4911-10, -50, -1000)
- Prolactin, human recombinant (Cat # 4687-10, -50, -1000)
- Prolactin, murine recombinant (Cat # 4688-10, -50, -1000)
- Prolactin, rat recombinant (Cat # 4689-10, -50, -1000)

**FOR RESEARCH USE ONLY! Not to be used in humans.**