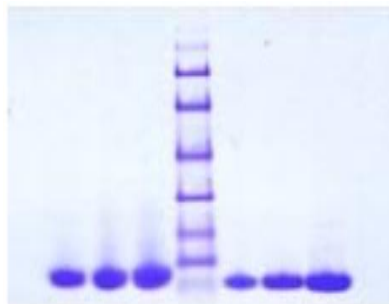


## LALBA

### Native Human Lactalbumin

<b>Catalog No.</b>	CSI11994A	<b>Quantity:</b>	5 mg
<b>Alternate Names:</b>	Alpha-lactalbumin, Lactose synthase B protein, Lysozyme-like protein 7		
<b>Description:</b>	<p><math>\alpha</math>-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. <math>\alpha</math>-Lactalbumin forms the regulatory subunit of the lactose synthase (LS) heterodimer and <math>\beta</math>-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, <math>\alpha</math>-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.</p>		
<b>UniProt ID:</b>	P00709		
<b>Source:</b>	Human milk		
<b>Molecular Weight:</b>	14 kDa		
<b>Formulation:</b>	Lyophilized from de-ionized water		
<b>Purity:</b>	$\geq 95\%$ by SDS-PAGE		
<b>Extinction Coefficient:</b>	$E^{0.1\%}_{280nm} = 1.82$		
<b>Reconstitution:</b>	<p><b>Centrifuge vial prior to opening.</b> Add sterile distilled water to a concentration of 0.1 -1.0 mg/mL and gently pipette the solution up and down the sides of the vial. <b>DO NOT VORTEX.</b> Allow several minutes for complete reconstitution.</p>		
<b>Storage &amp; Stability:</b>	Store unopened at -20°C to -80°C for up to 1 year. Upon reconstitution, store aliquots at -20°C to -80°C. <b>Avoid repeated freeze-thaw cycles.</b>		
<b>Infectious Disease Statement:</b>	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



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