

## Recombinant Human LALBA

**Cat. No.** LALBA-27311TH    **Lot. No.** (See product label)

### SPECIFICATION

|                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>   | Recombinant fragment of Human alpha Lactalbumin with a N terminal proprietary tag;<br>Predicted MW 37.73 kDa.                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Species</b>            | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Source</b>             | Wheat Germ                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>ProteinLength</b>      | 110 amino acids                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Description</b>        | <p>This gene encodes alpha-lactalbumin, a principal protein of milk. 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. A folding variant of alpha-lactalbumin, called HAMLET, likely induces apoptosis in tumor and immature cells.</p> |
| <b>Molecular Weight</b>   | 37.730kDa inclusive of tags                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Tissue specificity</b> | Mammary gland specific. Secreted in milk.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Form</b>               | Liquid                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Purity</b>             | Proprietary Purification                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

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|                                 |                                                                                                                      |
|---------------------------------|----------------------------------------------------------------------------------------------------------------------|
| <b>Storage buffer</b>           | pH: 8.00Constituents:0.79% Tris HCl, 0.3% Glutathione                                                                |
| <b>Storage</b>                  | Shipped on dry ice. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.                            |
| <b>Sequences of amino acids</b> | DIDGYGGIALPELICTMFHTSGYDTQAIVENNESTEYGLF QISNKLWCKSSQVPQSR<br>NICDISCDKFLDDDDITDDIMCAK KILDIKGIDYWLAHKALCTEKLQWLCEKL |
| <b>Sequence Similarities</b>    | Belongs to the glycosyl hydrolase 22 family.                                                                         |

## GENE INFORMATION

|                            |                                                       |
|----------------------------|-------------------------------------------------------|
| <b>Gene Name</b>           | LALBA lactalbumin, alpha- [ Homo sapiens ]            |
| <b>Official Symbol</b>     | LALBA                                                 |
| <b>Synonyms</b>            | LALBA; lactalbumin, alpha-; alpha-lactalbumin; LYZL7; |
| <b>Gene ID</b>             | 3906                                                  |
| <b>mRNA Refseq</b>         | NM_002289                                             |
| <b>Protein Refseq</b>      | NP_002280                                             |
| <b>MIM</b>                 | 149750                                                |
| <b>Uniprot ID</b>          | P00709                                                |
| <b>Chromosome Location</b> | 12q13                                                 |

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**Pathway**

Galactose metabolism, organism-specific biosystem; Galactose metabolism, conserved biosystem; Metabolic pathways, organism-specific biosystem;

**Function**

calcium ion binding; lactose synthase activity;

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