

## Recombinant Human LIPF, His-tagged

**Cat. No.** LIPF-101H    **Lot. No.** (See product label)

### SPECIFICATION

|                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>     | A DNA sequence encoding the human LIPF (AAI12273.1) (Met1-Lys398) was expressed with a C-terminal polyhistidine tag.                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Species</b>              | Human                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Source</b>               | Insect Cells                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>ProteinLength</b>        | 1-398 a.a.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>Description</b>          | This gene encodes gastric lipase, an enzyme involved in the digestion of dietary triglycerides in the gastrointestinal tract, and responsible for 30% of fat digestion processes occurring in human. It is secreted by gastric chief cells in the fundic mucosa of the stomach, and it hydrolyzes the ester bonds of triglycerides under acidic pH conditions. The gene is a member of a conserved gene family of lipases that play distinct roles in neutral lipid metabolism. Several transcript variants encoding different isoforms have been found for this gene. |
| <b>Predicted N Terminal</b> | Leu 20                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Form</b>                 | Lyophilized from sterile PBS, pH 7.4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Molecular Mass</b>       | The secreted recombinant human LIPF consists of 389 amino acids and predicts a molecular mass of 44.6 KDa. The apparent molecular mass of the protein is approximately 45 KDa in SDS-PAGE under reducing conditions.                                                                                                                                                                                                                                                                                                                                                   |

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

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|------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Endotoxin</b> | < 1.0 EU per µg of the protein as determined by the LAL method                                                                                      |
| <b>Purity</b>    | > 95 % as determined by SDS-PAGE                                                                                                                    |
| <b>Stability</b> | Samples are stable for up to twelve months from date of receipt at -70°C                                                                            |
| <b>Storage</b>   | Store it under sterile conditions at -70°C. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles. |

## GENE INFORMATION

|                            |                                                                                                  |
|----------------------------|--------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>           | LIPF lipase, gastric [ Homo sapiens (human) ]                                                    |
| <b>Official Symbol</b>     | LIPF                                                                                             |
| <b>Synonyms</b>            | LIPF; GL; HGL; HLAL; lipase, gastric; gastric triacylglycerol lipase; gastric lipase; EC 3.1.1.3 |
| <b>Gene ID</b>             | 8513                                                                                             |
| <b>mRNA Refseq</b>         | NM_001198829                                                                                     |
| <b>Protein Refseq</b>      | NP_001185758                                                                                     |
| <b>MIM</b>                 | 601980                                                                                           |
| <b>UniProt ID</b>          | P07098                                                                                           |
| <b>Chromosome Location</b> | 10q23.31                                                                                         |

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|----------------|-----------------------------------------------------------------------------------|
| <b>Pathway</b> | Acylglycerol degradation; Fat digestion and absorption; Fatty Acid Beta Oxidation |
|----------------|-----------------------------------------------------------------------------------|

|                 |                                                                                  |
|-----------------|----------------------------------------------------------------------------------|
| <b>Function</b> | lipid binding; retinyl-palmitate esterase activity; triglyceride lipase activity |
|-----------------|----------------------------------------------------------------------------------|

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