

## Recombinant Mouse Lacc1 Protein, Myc/DDK-tagged

Cat. No. Lacc1-3746M    Lot. No. (See product label)

### SPECIFICATION

#### Product Overview

Purified recombinant protein of mouse full-length laccase domain containing 1 (Lacc1), with C-terminal MYC/DDK tag, expressed in HEK293T cells.

#### Species

Mouse

#### Source

HEK293

#### Description

Purine nucleoside enzyme that catalyzes the phosphorolysis of adenosine, guanosine and inosine nucleosides, yielding D-ribose 1-phosphate and the respective free bases, adenine, guanine and hypoxanthine. Also catalyzes the phosphorolysis of S-methyl-5'-thioadenosine into adenine and S-methyl-5-thio-alpha-D-ribose 1-phosphate. Also has adenosine deaminase activity. Acts as a regulator of innate immunity in macrophages by modulating the purine nucleotide metabolism, thereby regulating the metabolic function and bioenergetic state of macrophages. Enables a purine nucleotide cycle between adenosine and inosine monophosphate and adenylosuccinate that prevents cytoplasmic acidification and balances the cytoplasmic-mitochondrial redox interface. The purine nucleotide cycle consumes aspartate and releases fumarate in a manner involving fatty acid oxidation and ATP-citrate lyase activity. Participates in pattern recognition receptor-induced cytokines in macrophages: associates with the NOD2-signaling complex and promotes optimal NOD2-induced signaling, cytokine secretion and bacterial clearance. Localizes to the endoplasmic reticulum upon PRR stimulation of macrophages and associates with endoplasmic reticulum-stress sensors, promoting the endoplasmic reticulum unfolded protein response (UPR). Does not show laccase activity.

 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

|                       |                                                                                                                                               |
|-----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Molecular Mass</b> | 48 kDa                                                                                                                                        |
| <b>Purity</b>         | > 80% as determined by SDS-PAGE and Coomassie blue staining                                                                                   |
| <b>Stability</b>      | Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles. |
| <b>Storage</b>        | Store at -80 centigrade after receiving vials.                                                                                                |
| <b>Concentration</b>  | >50 µg/mL as determined by microplate BCA method                                                                                              |
| <b>Storage Buffer</b> | 25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.                                                                                         |

## GENE INFORMATION

|                        |                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>       | <a href="#">Lacc1 laccase domain containing 1 [ Mus musculus (house mouse) ]</a>                                                                                                                                                                                                                                                                                            |
| <b>Official Symbol</b> | <a href="#">Lacc1</a>                                                                                                                                                                                                                                                                                                                                                       |
| <b>Synonyms</b>        | Lacc1; laccase domain containing 1; 9030625A04Rik; purine nucleoside phosphorylase LACC1; S-methyl-5'-thioadenosine phosphorylase LACC1; adenosine deaminase LACC1; fatty acid metabolism-immunity nexus; guanosine phosphorylase LACC1; laccase (multicopper oxidoreductase) domain containing 1; laccase domain-containing protein 1; EC 2.4.2.1; EC 2.4.2.28; EC 3.5.4.4 |
| <b>Gene ID</b>         | <a href="#">210808</a>                                                                                                                                                                                                                                                                                                                                                      |
| <b>mRNA Refseq</b>     | <a href="#">NM_172488</a>                                                                                                                                                                                                                                                                                                                                                   |
| <b>Protein Refseq</b>  | <a href="#">NP_766076</a>                                                                                                                                                                                                                                                                                                                                                   |

 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



UniProt ID

Q8BZT9

 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