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## Product Data Sheet

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Product Name: LBP Mouse  
Cat. No.: GP23804  
Batch No.: 1

### Product Data

Purity	>98%	Source	Chinese Hamster Ovarian Cells (CHO).
Physical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Lipopolysaccharide-binding protein; LBP; Ly88.		
Solubility	It is recommended to reconstitute the lyophilized LBP in sterile 18MΩ-cm H <sub>2</sub> O not less than 100μg/ml, which can then be further diluted to other aqueous solutions.		
Formulation	Recombinant Mouse LBP was lyophilized from a protein solution (1 mg/ml) containing phosphate-buffered saline, pH 7.2.		

### Introduction

Lipopolysaccharides (LPS) are a type of glycolipids on the outer cell wall of Gram-negative bacteria. Lipopolysaccharide binding protein (aka LBP) is a plasma protein which facilitates the diffusion of bacterial LPS (endotoxin). LBP is involved in the acute-phase immunologic response to gram-negative bacterial infections. In cooperation with bactericidal permeability-increasing protein (BPI), LBP binds LPS and interacts with the CD14 receptor, most likely playing a role in regulating LPS-dependent monocyte responses. LBP belongs to a family of structurally and functionally related proteins, including BPI, plasma cholesteryl ester transfer protein (CETP), and phospholipid transfer protein (PLTP). The LBP gene is found on chromosome 20, directly downstream of the BPI gene. LBP catalyzes the transfer of LPS monomers from LPS aggregates to HDL particles, to phospholipid bilayers, and to a binding site on soluble CD14 (sCD14). sCD14 is capable of speeding up the transfer by receiving an LPS monomer from an LPS aggregate, and then yielding it to an HDL particle, therefore acting as a soluble "shuttle" for an insoluble lipid.

### Biological Activity

Up to 2μg/ml LBP mediates binding of FITC-LPS (0.5μg/ml) to CD14+CHO transfectants

**Caution: Product has not been fully validated for medical applications. For research use only.**

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(2 x 10<sup>6</sup>/ml).

### Stability

Lyophilized LBP Mouse Recombinant although stable at room temperature for 3 weeks, should be stored desiccated below -18°C . Upon reconstitution LBP should be stored at 4°C between 2-7 days and for future use below -18°C .Please prevent freeze-thaw cycles.

### Background

LBP is produced from mouse LBP transfected CHO-cells in serum free medium. For transfection we have cloned complete mouse LBP cDNA into expression vector pPOL-DHFR. Before transfection the complete mouse LBP cDNA was amplified by PCR and cloned into expression vector p-POL-DHFR. RmLBP was produced by his-tag by means of metal affinity purification with Talon and controlled by SDS page. Showing a 58kDa band on SDS-PAGE. Attention: His-tag at the c-terminal end of the LBP has no protease site and is not to split off.

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