Product Data Sheet

Product Name:	LBP Human
Cat. No.:	GP23803
Batch No.:	1

Product Data

Purity	>98%	Source	Chinese Hamster Ovarian Cells (CHO).
Phycical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Lipopolysaccharide-binding protein; LBP; MGC22233.		
Solubility	Every 10μg of recombinant human LBP should be reconstituted using 33μl of sterile H2O. The solution can be than diluted with phosphate-buffered saline or other buffers.		
Formulation	Recombinant Human LBP was lyophilized from a protein solution (0.3mg/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 0.2 μg/ ml LBP mediates binding of FITC-LPS (0.5μg/ml) to CD14+CHO

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com
Address: 10292 Central Ave. #205, Montclair, CA, USA

transfectants (FACS).

Stability

Lyophilized LBP Human 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

The Lipopolysaccharide Binding Protein is produced from human LBP transfected CHO-cells in serum free medium. Before transfection the complete human LBP-cDNA was amplified by PCR and cloned into expression vector p-POL-DHFR.The recombinant Human LBP was purified by his-tag with metal affinity purification with Talon and controlled by SDS page. Showing a 58kDa band on SDS-PAGE.Attention: His-tag has no protease site and can not be split off.