Product Data Sheet

Product Name:	LBP Human, HEK
Cat. No.:	GP23805
Batch No.:	1

Product Data

Purity	>98%	Source	HEK293 Cells.
Phycical Appearance	solid	Shipping Condition	Shipped at Room temp.
Synonyms	Lipopolysaccharide-binding protein; LBP; MGC22233; Ly88.		
Amino Acid Sequence	ANPGLVARIT DKGLQYAAQE GLLALQSELL RITLPDFTGD LRIPHVGRGR YEFHSLNIHS CELLHSALRP VPGQGLSLSI SDSSIRVQGR WKVRKSFFKL QGSFDVSVKG ISISVNLLLG SESSGRPTVT ASSCSSDIAD VEVDMSGDLG WLLNLFHNQI ESKFQKVLES RICEMIQKSV SSDLQPYLQT LPVTTEIDSF ADIDYSLVEA PRATAQMLEV MFKGEIFHRN HRSPVTLLAA VMSLPEEHNK MVYFAISDYV FNTASLVYHE EGYLNFSITD DMIPPDSNIR LTTKSFRPFV PRLARLYPNM NLELQGSVPS APLLNFSPGN LSVDPYMEID AFVLLPSSSK EPVFRLSVAT NVSATLTFNT SKITGFLKPG KVKVELKESK VGLFNAELLE ALLNYYILNT FYPKFNDKLA EGFPLPLLKR VQLYDLGLQI HKDFLFLGAN VQYMRVHHHH HH.		
Solubility	It is recommended to add deionized water to prepare a working stock solution of approximately 0.5mg/ml and let the lyophilized pellet dissolve completely.		
Formulation	LBP filtered (0.4 μm) and lyophilized from 0.5mg/ml solution in PBS, pH7.5 and 5% (w/v) Threalose.		

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,

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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.

Stability

Store lyophilized protein at -20°C . Aliquot the product after reconstitution to avoid repeated freezing/thawing cycles. Reconstituted protein can be stored at 4°C for a limited period of time; it does not show any change after two weeks at 4°C .

Background

LBP Human Recombinant is a single, glycosylated polypeptide chain containing 462 amino acids (26-481a.a) and having a molecular mass of 51.7kDa (calculated). LBP is fused to a 6 a.a His tag at C-terminal.

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