LBP
Recombinant Human Lipopolysaccharide-binding Protein

Catalog No.	CRL112A	**Quantity:**	2 µg
	CRL112B		5 µg
	CRL112C		10 µg

Alternate Names: Lipopolysaccharide-binding protein, LBP, MGC22233.

Description: 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.
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.
Attention: His-tag has no protease site and can not be split off.

Physical Appearance: Sterile Filtered White lyophilized (freeze-dried) powder.

Gene ID: 3929

Source: CHO cells

Molecular Mass: On SDS-PAGE coomassie blue stained gel, the 95% purified recombinant protein shows a band at 58 kDa.

Formulation: Recombinant Human LBP was lyophilized from a protein solution (0.25 mg/ml) containing phosphate-buffered saline, pH 7.2.

Purification: The recombinant Human LBP was purified by his-tag with metal affinity purification with Talon and controlled by SDS page.

Biological Activity: Up to 0.2 µg/ ml LBP mediates binding of FITC-LPS (0.5 µg/ml) to CD14+CHO transfectants (FACS).

Reconstitution: Every 10 µg of recombinant human LBP should be reconstituted using 40µl of sterile water. The solution can be than diluted with phosphate-buffered saline or other buffers.

Storage & 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.

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