

LBP Protein, Human (HEK293, His)

Cat. No.:	HY-P70313
Synonyms:	rHuLipopolysaccharide-binding protein/LBP, His; Lipopolysaccharide-Binding Protein; LBP
Species:	Human
Source:	HEK293
Accession:	P18428 (A26-V481)
Gene ID:	3929
Molecular Weight:	Approximately 55-70 kDa due to the glycosylation

PROPERTIES

AA Sequence	<pre> ANPGLVARIT D K G L Q Y A A Q E G L L A L Q S E L L R I T L P D F T G D LRIPHVGRGR Y E F H S L N I H S C E L L H S A L R P V P G Q G L S L S I SDSSIRVQGR W K V R K S F F K L Q G S F D V S V K G I S I S V N L L L G SESSGRPTVT A S S C S S D I A D V E V D M S G D L G W L L N L F H N Q I ESKFQKVLES R I C E M I Q K S V S S D L Q P Y L Q T L P V T T E I D S F ADIDYSLVEA P R A T A Q M L E V M F K G E I F H R N H R S P V T L L A A VMSLPEEHNK M V Y F A I S D Y V F N T A S L V Y H E E G Y L N F S I T D DMIPPDSNIR L T T K S F R P F V P R L A R L Y P N M N L E L Q G S V P S APLLNFSPGN L S V D P Y M E I D A F V L L P S S S K E P V F R L S V A T NVSATLTFNT S K I T G F L K P G K V K V E L K E S K V G L F N A E L L E ALLNYYILNT F Y P K F N D K L A E G F P L P L L K R V Q L Y D L G L Q I HKDFLFLGAN V Q Y M R V </pre>
Biological Activity	Measured by its ability to enhance LPS-stimulated IL-8 secretion by THP 1 human acute monocytic leukemia cells. The ED ₅₀ for this effect is 0.4641-3.401 ng/ml, corresponding to a specific activity is > 2.940×10 ⁵ U/mg.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μm filtered solution of 20 mM Tris-HCl, 500 mM NaCl, 1 mM EDTA, pH 8.0 or 20 mM PB, 150 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

LBP takes center stage in the innate immune response by directly engaging with the lipid A moiety of bacterial lipopolysaccharides (LPS), a pivotal glycolipid abundantly present in the outer membrane of Gram-negative bacteria. This interaction serves as a critical affinity enhancer for CD14, promoting its association with LPS and facilitating the subsequent release of cytokines in response to bacterial lipopolysaccharide. Notably, LBP, when bound to LPS, establishes interactions through its C-terminus with both soluble and membrane-bound CD14, underscoring its instrumental role in orchestrating key events in the innate immune system's defense against bacterial pathogens.

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

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