LBP monoclonal antibody, clone biG 412

Catalog # MAB5663 Size 100 ug

Specification

Product Description	Mouse monoclonal antibody raised against recombinant LBP.
Immunogen	Recombinant protein corresponding to human LBP.
Host	Mouse
Reactivity	Bovine, Human
Specificity	LPS binding protein (LBP) is an approximately 60 KDa acute phase protein that is produced by hepatocytes. This protein strongly binds to LPS and has been shown to play an important role in the handling of LPS by the host. A number of functions of LBP have been reported. First, LBP transfers LPS to the LPS receptor CD14 on mononuclear phagocytes, leading to a 100-1,000-fold increased sensitivity of the cells to LPS. Furthermore, LBP can enhance the response of CD14 negative cells by acceleration of LPS binding to soluble CD14, a complex that stimulates these cells. Next, LBP transfers LPS into High Density Lipoprotein (HDL), which effectively neutralizes its biological potency. LBP was demonstrated to protect mice from septic shock caused by LPS or gram negative bacteria.
Form	Lyophilized
Isotype	IgG1
Recommend Usage	ELISA (1:50000) The optimal working dilution should be determined by the end user.
Storage Buffer	Lyophilized from PBS
Storage Instruction	Store at -20 or -80°C. After reconstitution with deionized water, store at -20°C or lower. Aliquot to avoid repeated freezing and thawing.

Applications

- Enzyme-linked Immunoabsorbent Assay

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Gene Info — LBP

Entrez GeneID	3929
Gene Name	LBP
Gene Alias	MGC22233
Gene Description	lipopolysaccharide binding protein
Omim ID	151990
Gene Ontology	Hyperlink
Gene Summary	The protein encoded by this gene is involved in the acute-phase immunologic response to gram-negative bacterial infections. Gram-negative bacteria contain a glycolipid, lipopolysaccharide (LPS), on their outer cell wall. Together with bactericidal permeability-increasing protein (BPI), the encoded protein binds LPS and interacts with the CD14 receptor, probably playing a role in regulating LPS-dependent monocyte responses. Studies in mice suggest that the encoded protein is necessary for the rapid acute-phase response to LPS but not for the clearance of LPS from circulation. This protein is part of a family of structurally and functionally related proteins, including BPI, plasma cholesteryl ester transfer protein (CETP), and phospholipid transfer protein (PLTP). Finally, this gene is found on chromosome 20, immediately downstream of the BPI gene. [provided by RefSeq
Other Designations	LPS-binding protein|OTTHUMP00000030965|lipopolysaccharide-binding protein

Publication Reference

- Lipopolysaccharide-binding protein critically regulates lipopolysaccharide-induced IFN-beta signaling pathway in human monocytes.

  Kato A, Ogasawara T, Homma T, Saito H, Matsumoto K.

  The Journal of Immunology 2004 May; 172(10):6185.

  Application: Incubated, Recombinant protein

- Elevated levels of lipopolysaccharide-binding protein and soluble CD14 in plasma in neonatal early-onset sepsis.

  Berner R, Furll B, Stelter F, Drose J, Muller HP, Schutt C.

  Clinical and Diagnostic Laboratory Immunology 2002 Mar; 9(2):440.

  Application: ELISA, Human, Human plasma

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- Soluble CD14 in human breast milk and its role in innate immune responses.

  Vidal K, Labeta MO, Schiffrin EJ, Donnet-Hughes A.

  Acta Odontol Scand 2001 Aug; 59(5):330.

  Application: ELISA, Func, Human, HT-29 cells, Human serum

Pathway

- Toll-like receptor signaling pathway

Disease

- Atherosclerosis
- Birth Weight
- Cardiovascular Diseases
- Crohn Disease
- Diabetes Mellitus
- Edema
- Endocarditis
- Genetic Predisposition to Disease
- Glioblastoma
- Glioma
- Gram-Negative Bacterial Infections
- Leukemia
- Liver Cirrhosis
- Meningeal Neoplasms
- Meningioma
- Myocardial Infarction
- Neutropenia

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- Pregnancy Complications
- Sepsis
- Staphylococcal Infections
- Tobacco Use Disorder
- Vaginosis
- Wounds and Injuries

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