Lbp monoclonal antibody, clone biG 33

Catalog # MAB5664 Size 100 ug

Specification	
Product Description	Mouse monoclonal antibody raised against recombinant Lbp.
Immunogen	Recombinant protein corresponding to mouse Lbp.
Host	Mouse
Reactivity	Mouse, Rat
Specificity	The monoclonal antibody biG 33 reacts highly specific with mouse natural and recombinant LBP. Thi s antibody is a type I antibody blocking the LPS binding to LBP. LPS binding protein (LBP) is an app roximately 60 KDa acute phase protein that is produced by hepatocytes. This protein strongly binds t o LPS and has been shown to play an important role in the handling of LPS by the host. A number of f unctions of LBP have been reported. First, LBP transfers LPS to the LPS receptor CD14 on mononu clear 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 CD 14, a complex that stimulates these cells. Next, LBP transfers LPS into High Density Lipoprotein (HD L), which effectively neutralizes its biological potency. LBP was demonstrated to protect mice from s eptic shock caused by LPS or gram negative bacteria.
Form	Lyophilized
Purification	Protein G purification
lsotype	lgG1
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°C on dry atmosphere. After reconstitution with deionized water, store at -80°C for 6 up to 8 months. Aliquot to avoid repeated freezing and thawing.

Applications

- Western Blot
- Enzyme-linked Immunoabsorbent Assay

Gene Info — LbpEntrez GeneID16803Gene NameLbpGene AliasLy88Gene Descriptionlipopolysaccharide binding proteinGene OntologyHyperlinkOther DesignationsOTTMUSP0000016997|lipopolysaccharide-binding protein

Publication Reference

• Specific adipose tissue Lbp gene knockdown prevents diet-induced body weight gain, impacting fat accretionrelated gene and protein expression.

Jessica Latorre, Francisco Ortega, Núria Oliveras-Cañellas, Ferran Comas, Aina Lluch, Aleix Gavaldà-Navarro, Samantha Morón-Ros, Wifredo Ricart, Francesc Villarroya, Marta Giralt, José Manuel Fernández-Real, José María Moreno-Navarrete.

Molecular Therapy. Nucleic Acids 2022 Mar; 27:870.

Application: WB-Tr, Mouse, Mouse adipose tissue

• <u>A role for adipocyte-derived lipopolysaccharide-binding protein in inflammation-and obesity-associated</u> <u>adipose tissue dysfunction.</u>

Moreno-Navarrete JM, Escote X, Ortega F, Serino M, Campbell M, Michalski MC, Laville M, Xifra G, Luche E, Domingo P, Sabater M, Pardo G, Waget A, Salvador J, Giralt M, Rodriguez-Hermosa JI, Camps M, Kolditz CI, Viguerie N, Galitzky J, Decaunes P, Ricart W, Fruhbeck G, Villarroya F, Mingrone G, Langin D, Zorzano A, Vidal H, Vendrell J, Burcelin R, Vidal-Puig A, Fernandez-Real JM.

Diabetologia 2013 Nov; 56(11):2524.

Application: WB-Ce, Human, Adipocytes

Surfactant protein a inhibits lipopolysaccharide-induced immune cell activation by preventing the interaction of lipopolysaccharide with lipopolysaccharide-binding protein.

Stamme C, Muller M, Hamann L, Gutsmann T, Seydel U.

American Journal of Respiratory Cell and Molecular Biology 2002 Sep; 27(3):353.

Application: EMSA, Human, HEK 293 cells



 Dual role of lipopolysaccharide (LPS)-binding protein in neutralization of LPS and enhancement of LPSinduced activation of mononuclear cells.

Gutsmann T, Muller M, Carroll SF, MacKenzie RC, Wiese A, Seydel U. Infection and Immunity 2001 Nov; 69(11):6942.

Application: Func, TR-FRET, Human, Human mononuclear cells, Recombinant protein

• Binding of lipopolysaccharide (LPS) to CHO cells does not correlate with LPS-induced NF-kappaB activation.

Hamann L, Schumann RR, Flad HD, Brade L, Rietschel ET, Ulmer AJ. European Journal of Immunology 2000 Jan; 30(1):211.

Application: Flow Cyt, Mouse, CHO cells