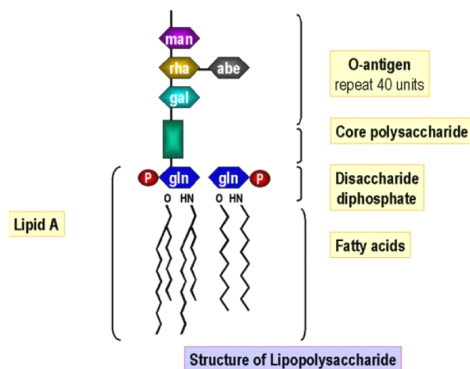


LPS ELISA Kit may Substitute for LAL Test

Lipopolysaccharide (Lipopolysaccharides ,LPS) is one of the main components of Gram-negative bacteria, which is also known as endotoxin in traditional idea. LPS can cause fever, shock, and even lead to death. With growing popularity of genetic engineering techniques in biological products and reagents, LPS becomes an important indicator to monitor residual bacteria as well as pyrogenicity in bio-products.

The LPS antibody and related immunoassay Kit are rare products on the current market owing to the nature of LPS itself, a thymus independent antigen (TI antigen) which can not induce antibody affinity maturation as well as immunological memory. Therefore, it is impossible to obtain high-affinity antibody by using conventional and routine immunological methods.



USCN utilized special methods that can greatly enhance LPS immunogenicity, and monoclonal antibodies([A91526Ge22](#)) with high specificity against LPS was also obtained by hybridoma technique. The LPS detection Kit ([E91526Ge](#)) was developed on this basis. 88 samples run at one time, easy operation, low cost. Compare LPS ELISA detection method with traditional LAL (Limulus Amebocyte Lysate) test detection method, the advantages of ELISA Kit are listed in the following table

Comparison	LAL Agglutination (USP Standard)	LPS ELISA KIT
Principle	Agglutination Reaction: LAL reacts with Endotoxin	Specific antigen-antibody interaction
Result Quantification	Semi-quantification	Quantification
Data Reading	Judge threshold by naked eyes	Read data by microplate reader
Sample Quantity	1 sample each time	88 samples each time
Vector	Test tube	96 well plate
Operation and Calculation	Multiple dilution, complex calculation	Certain dilution, simple calculation
Sample Volume	>100ul	50ul
Pricing	higher cost	lower cost

The main structure of LPS is shown in the figure above. The lipid A, with non-species-specificity, is the main component of the endotoxin. LPS antibody produced by USCNC is monoclonal antibody against the conserved region of LPS. Therefore, the LPS ELISA Kit can be used as a general Kit to measure LPS originated from different bacteria, which greatly widens its application. In addition, we recommend you to use [E71655Ge](#), the ELISA Kit designed to measure residual protein in E.Coli, the detection rate will be greatly increased.