MBL Oligomer ELISA Kit (KIT 029)

For human serum or plasma

MBL

- a key test in the assessment of primary immunodeficiency

BioPorto® Diagnostics

CE IVD*

Mannan-binding lectin (MBL)
– a key test in the assessment of primary immunodeficiency

Mannan-binding lectin (MBL) is an important component of the innate immune system. However, in at least 12% of the average Caucasian population, the circulating level of functional MBL is insufficient. This makes MBL deficiency by far the most common primary immunodeficiency[1]. While the consequences of MBL deficiency can be quite subtle, several studies have shown that MBL deficiency increases susceptibility to infectious diseases and predisposes to greater severity when infections occur. This correlation has not only led to an increase in the routine diagnostic use of MBL measurement, but has also pointed to a need for therapeutic applications of MBL[2].

Clinical significance

Deficiency of MBL has been shown to increase the overall susceptibility to infectious diseases and to predispose to greater disease severity; hence especially early and aggressive treatment with antibiotics can be required in risk patients such as those on cancer chemotherapy or immunosuppressant treatment.

MBL is a key test parameter in:

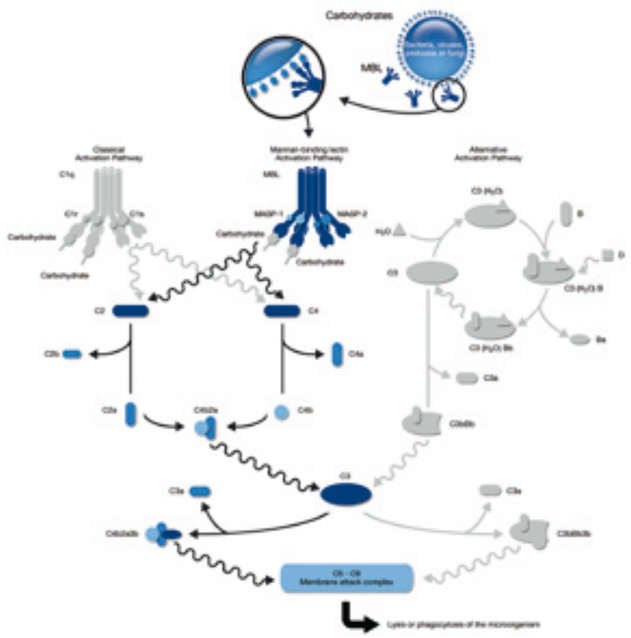
Patients with a suspected primary immunodeficiency
- Children with recurrent infections[3,4]
- Adults with recurrent, severe & persistent infections[5,6]

Immunosuppressed patients
- Cancer chemotherapy[7,8]
- Transplantation[9]

Patients with cystic fibrosis[10,11]

Patients with autoimmune diseases
- Systemic lupus erythematosus[12]
- Rheumatoid arthritis[13]

Women with recurrent spontaneous abortions[14,15]



MBL in complement activation

The complement system is a set of blood proteins that form a proteolytic enzyme cascade to help clear pathogens from the body. MBL binds specifically to microbial surface carbohydrates and activates the complement system by means of the MASP-dependent lectin pathway, the MASPs being proteolytic enzyme precursors bound to MBL. This leads to the phagocytosis or lysis of pathogenic microorganisms, including bacteria, viruses, protozoa and fungi.

Only the normally oligomerized forms of MBL are functional, i.e. capable of binding efficiently to microbial carbohydrates and associating with the MASPs.

The MBL Oligomer ELISA Kit (KIT 029)

The MBL Oligomer ELISA Kit employs a monoclonal antibody sandwich which is highly specific for normally oligomerized MBL molecules. Hence the results obtained with the MBL Oligomer ELISA Kit (KIT 029) correspond to the circulating levels of "functional" MBL.
The MBL Oligomer ELISA Kit (KIT 029) is used in research all over the world and for routine diagnostic purposes in several countries.

Key features

- Measures oligomerized "functional" MBL
- Measures in plasma and serum
- All reagents are ready-to-use
- Storage at 2-8°C
- For in-vitro diagnostic use*
- Can be used in many different automated ELISA workstations

Kit components

Item	Contents	Quantity
①	12 x 8 coated Microwells + Frame	96 wells
②	Sample Diluent	1 x 60 mL
③a-③h	MBL Calibrator 1-8	8 x 1 mL
④	25x Wash Solution Concentrate	1 x 30 mL
⑤	Biotinylated MBL Antibody	1 x 12 mL
⑥	HRP-Streptavidin	1 x 12 mL
⑦	TMB Substrate	1 x 12 mL
⑧	Stop Solution	1 x 16 mL

Assay procedure

MBL antibody

Plates are precoated with the primary MBL antibody and are ready to use

1 hour

MBL

Diluted serum or calibrators are added to each well and incubated

1 hour

Biotinylated MBL antibody

Biotinylated monoclonal detection antibody is added to each well and incubated

1 hour

Streptavidin - HRP

HRP-conjugated streptavidin is added to each well and incubated

15 min.

Substrate (TMB)

Substrate is added to each well and developed for 15 minutes

Quantitative results are obtained by measuring the absorbance reading at 450 nm

Total assay time less than 4 hours

Ordering information

Cat. No.	Product name
KIT 029	MBL Oligomer ELISA Kit CE IVD
WASH 029-250	250 mL 25x Wash Solution Concentrate KIT 029
WASH 029-30	30 mL 25x Wash Solution Concentrate KIT 029

*In the European Union, Canada and India only. For research use only in the rest of the world.

Related products

Cat. No.	Product name
HYB 131-01	Mouse monoclonal anti-MBL antibody
HYB 131-01B	Biotinylated mouse monoclonal anti-MBL antibody
HYB 131-10	Mouse monoclonal anti-MBL antibody
HYB 131-11	Mouse monoclonal anti-MBL antibody
SER 101	MBL standard serum (1000 AU), lyophilized
SER 102	MBL oligomer deficient serum, B/B genotype

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