

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.



Clinical application

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

Adults with recurrent, severe & persistent infections

Immunosuppressed patients

Cancer chemotherapy

Transplantation

Patients with cystic fibrosis

What is MBL?

MBL is a plasma protein that activates the complement system on binding to invading pathogens including bacteria, viruses, protozoa and fungi. This leads to the phagocytosis or lysis of the invading microorganisms. MBL also has more subtle immunomodulatory effects. Only the normally oligomerized forms of MBL are functional, i.e. capable of binding efficiently to microbial carbohydrates.

Kit features

Measures oligomerized “functional” MBL

Simple ELISA format - easy to perform

Ready-to-use calibrators and working solutions

Precoated ELISA wells

All incubations performed at room temperature

Measures MBL both in serum and plasma

Easy storage

All components are stored at 4°C

Automation possible on open ELISA workstations

Detection range (at the recommended sample dilutions) 5 – 4000 ng/mL