

**Anti-Mannan-binding lectin (MBL, human)
Mouse monoclonal antibody**

Subclass: IgG1/k

PRODUCT NO. **HYB 131-10**

PRESENTATION Preparation: Protein-A purified
Content: Available in 200 µL and 1 mL volumes, 1 mg/mL
Solvent: 0.01 M phosphate buffer, pH 7.4, containing 0.5 M NaCl and 15 mM sodium azide
Storage: In the dark at 4-8°C

ANTIGEN Mannan-binding lectin (MBL), also called mannose-binding lectin or protein, belongs to the C-type family of collectins, showing calcium-dependent binding to certain sugars (1). It consists of oligomers of triple-chain subunits and its binding and complement activating activities depend on its normal oligomerization. On binding to mannan-like microbial surface carbohydrates, MBL activates the complement system by means of its own lectin pathway, depending on the MBL-associated serine proteases (MASPs). Because of the presence of different structural and promoter alleles in the population, 12% or more of the population have low concentrations (<50ng/mL) of normally oligomerized, functional MBL in plasma or serum (2).

IMMUNOGEN MBL purified from human donor plasma and adsorbed onto aluminum hydroxide.

SPECIFICITY HYB 131-10 is specific for MBL from human serum or plasma.

EPITOPE SPECIFICITY The epitope is thought to be on the carbohydrate recognition domain and differs from that of HYB 131-01 and HYB 131-11.

REACTIVITY HYB 131-10 reacts strongly with MBL. Strong reaction is seen in ELISA with MBL coated directly onto the microtiter well. In Western blotting HYB 131-10 reacts with human MBL in both its oligomerized state and as single protein chain of 26 kDa. HYB 131-10 can be used to measure MBL in plasma or serum but is not specific for oligomerized MBL when used in combination with itself or other MBL antibodies.

CULTURE MEDIUM RPMI 1640 with 10% fetal calf serum

FUSION PARTNER X63-Ag8.653

IMMUNIZATION Female CF1 x BALB/c mice immunized by intraperitoneal injection

Method	Usability	Dilution guideline	References
ELISA	Yes	1/40,000	
Immunoblotting	Yes		
Immunohistochemistry	Not determined		

The dilution guideline for ELISA is based on use as detection antibody for antigen coated at 0.3 µg/mL together with human albumin 8.5 µg/mL. Users should determine the optimal dilutions for their own purposes.

REFERENCES
 1. Kawasaki N, Kawasaki T, Yamashina I (1983) Isolation and characterization of a mannan-binding protein from human serum. *J Biochem (Tokyo)* 94:937-947.
 2. Steffensen R, Thiel S, Varming K, Jersild C, Jensenius JC (2000) Detection of structural gene mutations and promoter polymorphisms in the mannan-binding lectin (MBL) gene by polymerase chain reaction with sequence-specific primers. *J Immunol Methods* 241:33-42.

CONDITIONS

All products are supplied on the understanding that they are for in vitro use only. The information and product are offered without guarantee as the ultimate conditions of use are beyond our control. The animals from which this product was derived have not been exposed to or inoculated with any livestock or poultry disease agents exotic to the United States or Western Europe, and did not originate from facilities where work with exotic disease agents affecting livestock or avian species is carried out.