# **COMPLEMENT ANTIBODIES**

### Distinctive antibodies for your immunoassays

BioPorto Diagnostics has through dedicated research and product development been able to offer a strong range of antibodies covering all three pathways of the Complement System.



Overview of the complement system. The name of the component and BioPorto Diagnostics' catalogue number are shown in the grey boxes.

All of the antibodies are mouse monoclonal affinity purified 1 mg/mL.





## The Complement System

The Complement System is a part of the immune system, and is made up of a large number of distinct plasma proteins that react with one another to opsonize pathogens and induce a series of inflammatory responses that help to fight infection.

Research in the Complement System is of great importance, as Complement Deficiencies are associated to many diseases, such as autoimmune diseases and recurrent bacterial infections. For example, deficiency in C3, which plays a central role in the activation of the Complement System, may lead to life-threatening pyogenic infections, among other diseases. Also important in the innate immune system is Mannan-binding lectin (MBL). Compared to other deficiencies in the Complement System, the incidence of MBL deficiency is high – and low levels of MBL are associated with increased risk of infection.

BioPorto offers the unique sandwich ELISA assay, which is the only assay built with the widely used and golden standard MBL antibody (HYB 131-01). More than 100 scientific references are using this assay and BioPorto is offering it as the MBL Oligomer ELISA Kit for measuring functional MBL in patients with suspected Primary Immune Deficiencies (PID). Our range of antibodies covers all 3 main Complement Pathways in the Complement System:

Classical Pathway Alternative Pathway MBL Pathway

#### Anti-Complement component C2 (human) – HYB 050-08

"We therefore believe that the monoclonal antibodies against human complement component C2 may be a useful tool in further structural and functional analyses of C2 and also with regard to clinical evaluation of the involvement of complement component C2 in certain diseases."

Ref. Stenbaek EI, Koch C, Barkholt V, Welinder KG (1986) Human complement component C2: production and characterization of polyclonal and monoclonal antibodies against C2. Mol Immunol 23:879-886. 3796629 Pubmed

#### Anti-Complement component C4 (human) – HYB 162-02

"We believe that the C4c specific antibody and the ELISA might be important tools in the future assessment of in vivo activation in situations where the classical or the lectin complement pathways are involved in the pathogenesis."

Ref. Pilely K, Skjodt MO, Nielsen C, Andersen TE, Aabom AL, Vitved L, Koch C, Skjodt K, Palarasah Y (2014) A specific assay for quantification of human C4c by use of an anti-C4c monoclonal antibody. J Immunol Methods 405:87-96. 24472768 Pubmed

#### Anti-Complement component C5b-9 (human)

"In conclusion, we suggest that the MCaE11/anti-C9 assay for quantification of the TCC in plasma is sensitive, specific, and reliable. It can be used for further investigation of the terminal pathway activation of complement in vivo, and it can easily be used for quantification of TCC in large numbers of samples."

#### To see more, visit www.bioporto.com



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Ref. Mollnes TE, Lea T, Harboe M, Tschopp J (1985) Monoclonal antibodies recognizing a neoantigen of poly (C9) detect the human terminal complement complex in tissue and plasma. Scand J Immunol 22:183-195. 4035298 Pubmed