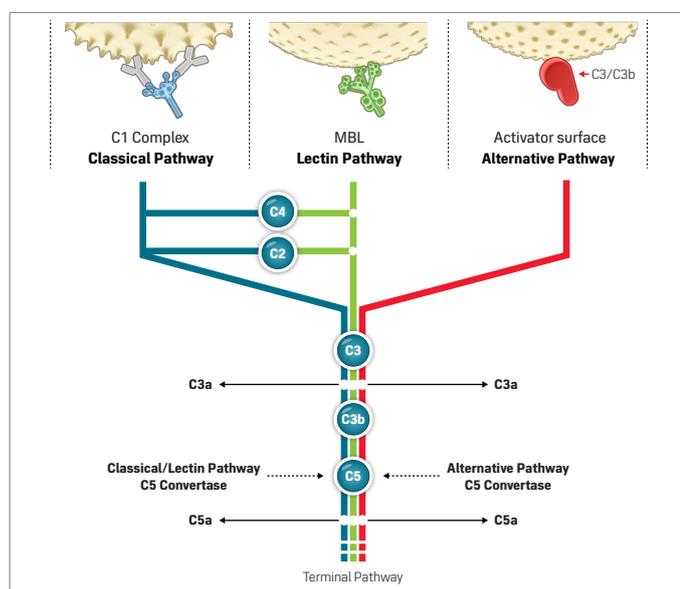


# A Valuable Tool in Complement-directed Drug Development

## FUNCTIONAL ASSESSMENT OF THE COMPLEMENT SYSTEM

The Svar Life Science complement function assay solution is an ELISA based platform developed in collaboration with an extensive KOL network. The ELISA test system enables determination of specific activity of all three pathways separately without interference from the others (1). The assay system delivers a fast and objective assessment of complement activity, a much-appreciated quality by the Biotech and Pharma industry.

The complement system, an important part of the innate immune system, consists of three different activation pathways - classical, alternative and lectin/MBL - and is regulated by complex protein cascades involving more than 30 proteins. The complement system cooperates closely with the adaptive immune system and cross-talks with the coagulation system. Having an important role in the fight against infections, and in the development of autoimmune and other diseases, the complement system is a matter of extensive research and topic of innovative and interesting new treatment regimens (2).



### DRUG DEVELOPMENT & CLINICAL RESEARCH

The incitement for developing complement manipulating drugs has grown dramatically over the last decade in response to the increased awareness of the importance of complement activity in a variety of clinical conditions. This new perception of the role of complement in health and disease highlight the promise of therapeutic intervention in the complement cascade.

### FLEXIBLE AND EASY TO USE

The well established ELISA technology used means a robust and standardised assay platform, delivering fast and reliable results within 3 hours. Results are easy to interpret, and the format of the assay can be used with a wide variety of open systems, individual research protocols and automation.

## A hot topic in Drug Development and Clinical Research

The Svar Life Science functional complement assays can be used in various applications within Drug Development and Clinical Research and offers the possibility to screen drug effects far downstream (i.e. C5).

They are recognised for their ability to assess the efficacy of complement targeted therapies, whether the aim is to inhibit or enhance complement functionality in research settings (3-7), determining **potency of complement-targeted therapies**.

**Monitoring of complement function/activity** is valuable in the development and optimisation of treatment regimens for complement related diseases. Examples are studies evaluating new treatment concepts for diseases involving the complement system, and algorithms for drugs modulating the complement system directly (4, 8-10).

During some circumstances complement activation can be devastating and cause severe reactions. For **off-target complement reactions** - such as off-target reactions to a drug candidate, antibody dependent complement activation (ACA), or contribute to graft rejection after transplantation (11-12) the Svar Life Science functional complement assays is a valuable tool.

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## FEATURES

- **Well established ELISA technology** - Robust, standardised assays detecting complement deficiencies of all three pathways selectively. Results within 3 hours.
- Allows for a complete **assessment of all three pathways simultaneously. No interference.**
- Similar assay procedure for all three pathways. Very **good agreement with haemolytic assays** (CH50, APH50).
- **Semi-quantitative assessment** by use of a calibrator curve derived from a separate lyophilized activity control.
- **Multifunctional ELISA kit** - assay adaptations possible for individual research protocols, validated protocols available for automation: high-throughput option
- **CE-marked for IVD** (in vitro diagnostic) use for all three pathways. Also available for **Research Use\***.
- Allows for testing effect/potency of **any inhibitory drug at any level and any pathway.**
- Complement function testing also **verifies the effect of certain treatments.**

## BENEFITS

Fast and reliable

Optimized objective quantification

Flexible format

Valuable tool in research applications

## Providing a Complete Picture of Complement Function

“Wieslab® Complement System Screen is a **multifunctional ELISA kit** for reliably **detecting complement deficiencies of all three pathways selectively**, but also for assessing complement activation in research applications”.  
Conclusion from Würzner et al (5).



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