

## **ONE TEST - THREE PATHWAYS**

# **A UNIQUE SOLUTION**

Proven correlation with haemolytic assays (CH50, APH50)

The Svar Life Science Complement assay allows you to characterize the function of the three individual pathways of the complement system in a simple, objective ELISA format, saving time and effort in securing an accurate result.

The Svar Life Science complement ELISA was developed in close collaboration with key opinion leaders and the design of the assay system allows for specific analysis of a chosen pathway without interference from another pathway.

The properties of the solution make it well-suited as an analytical tool for a range of disorders related to complement deficiency or dysfunction.

## A VALUABLE RESEARCH TOOL IN A NUMBER OF SITUATIONS

The increased awareness and interest in the complement system has augmented the need for a simple and objective method to assess the function of complement activation.

Deficiencies of complement components are generally associated with an increased susceptibility to a wide range of infections. Beside deficiency of complement proteins, dysregulation of complement activity has been suspected to be involved in the development and progression of a number of diseases. In recent years, several disorders have been proven to be related to dysfunctional complement activity.

#### Simple to use and easy to interpret

The Svar Life Science complement ELISA is purposely designed to detect complement deficiencies with high accuracy. It is easy to use, results are intuitive to interpret (Table), and being in an ELISA format the assay can be used with a wide variety of open systems.

Classical Pathway	Lectin (MBL) Pathway	Alternative Pathway	Possible deficiency
Normal	Normal	Normal	NONE
Reduced ↓	Normal	Normal	C1q, C1r, Cls
Normal	Normal	Reduced ↓	Properdin, Factor B, Factor D
Normal	Reduced ↓	Normal	MBL, MASP2
Reduced ↓	Reduced ↓	Reduced ↓	C3, C5, C6, C7, C8, C9, Factor H*, Factor I*
Reduced ↓	Reduced ↓	Normal	C4, C2

\*Deficiency of Factor H and/or Factor I cause consumption of C3, i.e. secondary C3-deficiency and thereby reduced pathway activity.



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## PRINCIPLE OF FUNCTIONAL COMPLEMENT ASSESSMENT

The complement system is composed of at least 50 soluble and cell-bound proteins. Complement activation occurs as a cascade of proteolytic reactions through three separate pathways, each triggered by different molecules.

#### Methodology

The Svar Life Science complement ELISA combines principles of the functional hemolytic assay for complement activation with ease of use and objective ELISA format employing antibodies specific for a neoepitope exposed by the formation of the Terminal Complement Complex (TCC, C5b-9) as a result of complement activation.

The wells of the microtiter strips are coated with specific activators of the classical, or the lectin (MBL), or the alternative pathway. Serum is diluted in pathway specific diluent, designed to ensure that only the respective pathway activated. During the incubation of the is serum. complement is activated through each pathway by the specific coating. Finally, C5b-9 is detected, and the amount of C5b-9 generated is proportional to the functional activation of the particular complement pathway.

#### References

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SPECIFIC COATING

SVA

#### **Product information**

COMPL 300 RUO	ELISA kit for total functional assessment of total Complement System	3 x 32 wells break-apart
COMPL CP310 RUO	ELISA kit for functional assessment of the Classical Pathway	96 wells break-apart
COMPL MP320 RUO	ELISA kit for functional assessment of the Lectin Pathway (MBL)	96 wells break-apart
COMPL AP330 RUO	ELISA kit for functional assessm ent of the Alternative Pathway	96 wells break-apart

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