

Flowchart

Use the flowchart for the selection of: A) The appropriate sample type or B) The appropriate technique for the assessment of complement.

A. SELECTION OF APPROPRIATE SAMPLE TYPE

Which sample type?

Complement function



Complement-preserved serum

- Collect aseptically and process within 1h
- Let clot at RT (30–45 min)
- Centrifuge 10 min, 2000xg, 4°C
- Store at -80°C
- Keep on ice during pre-analytical sample handling
- Avoid freeze-thawing

Prevent artificial complement activation in the tube!

Assessment of complement function or individual complement components?

Individual complement components



EDTA-Plasma

- Put on ice immediately after collection
- Process within 1h
- Centrifuge 10 min, 2000xg, 4°C
- Store at -80°C
- Keep on ice during pre-analytical sample handling
- Avoid freeze-thawing

B. SELECTION OF APPROPRIATE TECHNIQUE

Which technique or assay?

Complement function



Complement-preserved serum

- Hemolytic activity assays
- CP (CH50)
- AP (AH50)
- Functional ELISA
- Functionalized liposomes

Assessment of complement function or individual complement components?

Individual complement components



EDTA-Plasma

- Nephelometry
- ELISAs
- Multiplex assays
- OMICS/protein arrays
- Mass spectrometry

Reference:

Brandwijk RJMGE, Michels MAHM, van Rossum M, de Nooijer AH, Nilsson PH, de Bruin WCC, Toonen EJM. Pitfalls in complement analysis: A systematic literature review of assessing complement activation. *Front Immunol*. 2022 Oct 18;13:1007102.
doi: 10.3389/fimmu.2022.1007102. PMID: 36330514; PMCID: PMC9623276.



Read more:

 **HycultBiotech**
Let's improve health

Distributed by:

 **Vinci-Biochem®**

In Italy: Vinci-Biochem Srl
Contatto diretto: tel. 0571 568 147
vb@vincibiochem.it
www.vincibiochem.it