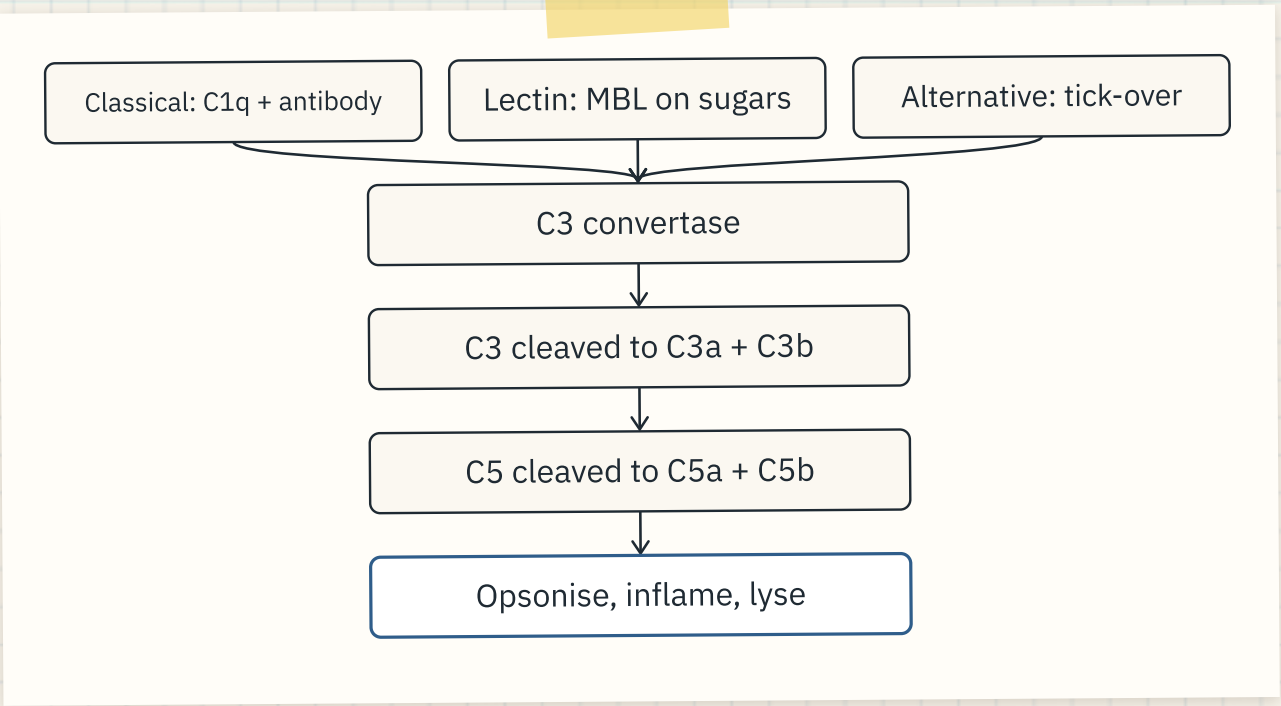
Complement: three ways in, one way out

Compare the pathways and the shared effectors



Step by step

1. All three converge on C3
2. C3b opsonises
3. C3a and C5a inflame
4. C5b to C9 form the MAC and lyse

Pathway	Starts with
Classical	C1q on IgM or IgG bound to antigen
Lectin	Mannose-binding lectin on sugars
Alternative	Spontaneous C3 tick-over

How each pathway starts

Rule of thumb

Three ways in, one way out

Lectin and alternative need no antibody

C3b coats, C3a and C5a inflame, MAC lyses

Exam traps

- Not every pathway needs antibody.
- Classical and lectin make the same C3 convertase, C4b2a.
- DAF and CD59 protect human cells, not microbes.

Complement system explained: three pathways, one ending

Video, written lesson, practice question and sources: medservatory.com/usmle-step-1/immunology/complement-pathways-classical-lectin-alternative

For exam study only, not medical advice. Follow local guidelines and your lab's ranges.
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