



**Keywords:** C<sub>3</sub> complement; Neisseria meningitidis; Hemolytic activity; Complement; Complement activation

**Introduction**

C<sub>3</sub> (C) is a central component of the complement system. It is a soluble protein that is activated by various pathways, including the classical pathway (C1-C3), the mannose-binding lectin pathway (MBL-C3), and the alternative pathway (C3, C3a, C3b). The activation of C<sub>3</sub> results in the formation of C3a and C3b, which are important for the immune response. C3a is a small peptide that acts as a chemoattractant for neutrophils and macrophages, and it also has anaphylatoxic activity. C3b is a larger protein that is important for the opsonization of pathogens and the formation of the membrane attack complex (MAC). The activation of C<sub>3</sub> is a key step in the complement cascade, and it is essential for the defense against infection and disease.



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