



3050 Spruce Street
Saint Louis, Missouri 63103 USA
Telephone (800) 325-5832 (314) 771-5765
Fax (314) 286-7828
email: techserv@sial.com
sigma-aldrich.com

Product Information

COMPLEMENT C3, HUMAN

Product No. C0651

Product Description

Complement C3 is a β_2 -globulin with two non-identical polypeptide chains, an α -chain with a molecular weight of 110,000 and a β -chain with a molecular weight of 70,000. It participates in both classical and alternative pathways of complement activation. C3 may interact with C3 convertase, C4,2 via classical activation to give rise to C5 convertase, C4,2,3² or C3 may interact with the protein of factor B, resulting in an alternative pathway C3 convertase, C3b,Bb³. The activation of C3 is accompanied by the formation of C3 fragments, C3a and C3b. Fragment C3a has anaphylatoxic activity and fragment C3b has the capability of binding to cell particles, including bacteria and immune complexes to facilitate their ingestion by phagocytic cells.⁵

Precautions

Potential Biohazard. Handle as if capable of transmitting infectious agents. Refer to Material Safety Data Sheet.

Product Profile

Complement C3, human is lyophilized from a solution containing 10 mM sodium phosphate, 150 mM sodium chloride, pH 7.2

Purity is approx. 95% by SDS-polyacrylamide gel electro-phoresis. Partial aggregation of C3 may be observed.

Approx. molecular weight: 185,000¹

Storage

Store below 0 °C. After reconstitution with deionized water, store at -70 °C or below. Repeated freezing and thawing is **not** recommended.

References

1. Budzko, D.B., et al., *Biochemistry*, **10**, 1166 (1971)
2. Müller-Eberhard, H.J., et al., *J. Exp. Med.*, **125**, 359 (1967)
3. Sandberg, A.L., et al., *J. Immunol.*, **104**, 329 (1970)
4. Vogt, W., et al., *Immunology*, **34**, 29 (1978)
5. Gigli, I. and Nelson, R.A., *Exp. Cell. Res.*, **51**, 45 (1968)

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