

Product Information

COMPLEMENT C1q, HUMAN

Product No. **C 0660**

Store at $-20\text{ }^{\circ}\text{C}$

Product Description

Human complement C1q is composed of six A-B dimers and three C-C dimers. C1q shows three subunits with molecular weights of 29,000, 26,000 and 22,000 after reduction with dithiothreitol.² The C1q molecule is a collagen-like protein which interacts with C1r and C1s through a calcium ion to form the complement component C1. Each component has a distinct function. The binding of C1q to the Fc portion of immunoglobulin results in activating the C1r, which in turn activates the C1s to yield the fully active C1 complement.^{3,4,5} Since the isolated C1q is free from contamination by IgG, IgM and IgA, a potential use of this protein is in recognizing the circulating immune complexes in various clinical conditions.

Storage

Store lyophilized solid at $-20\text{ }^{\circ}\text{C}$. Store at $-70\text{ }^{\circ}\text{C}$ after reconstituting with distilled water. Repeated freezing and thawing is **not** recommended.

Product Profile

Approx. molecular weight: 410,000

Protein: Determined by method of Lowry

Form: Lyophilized from a solution containing 0.5 M NaCl and 0.05 M Tris, pH 7.3

Purity: Single band against anti-C1q serum by immunoelectrophoresis. Single or no band against anti-whole serum. No visible reaction against anti-IgA, anti-IgM and anti-IgG serum at 20 μg of protein per gel.

Activity: Functionally active as assayed by the modified method of Kolb, et al.¹ using C1q Deficient Serum (Product No. C8567)

References

1. Kolb, W.P., *et al.*, J. Immunol., **122**, 2103 (1979)
2. Müller-Eberhard, H.J., Ann. Rev. Biochem., **44**, 697 (1975)
3. Velet, G., and Cooper N.R., J. Immunol., **112**, 339 (1974)
4. Yasmeen, D., J. Immunol., **116**, 518 (1976)
5. Sim, R. B., *et al.*, Biochem. J., **163**, 219 (1977)

11/98