

Complement

Complement Activator (HAGG) Heat Aggregated Gamma Globulin

For Research Use Only. Not for use in Diagnostic Procedures.

Background

The classical pathway of complement can be triggered by antibody bound to a foreign particle (immune complex, cell or other material). Particles of this type interact directly with C1q. C1q can then activate the C1r(2)C1s(2) sub-units of the C1 complex. The activated C1s cleaves C4 to C4b near the amino terminus of the gamma chain releasing C4a in the process. Activation of the Classical Pathway is under stringent control *in vivo*. C4b is rapidly degraded to iC4b and then to C4c and C4d. Because of the short life of the C4b molecule, much of the C4d is free and circulates in serum. As such C4d is an excellent marker for classical complement activation *in vivo* or *in vitro* and is therefore the basis of the MicroVue™ C4d EIA Kit (Item A008).

Heat Aggregated Gamma Globulin acts as a potent classical complement pathway activator, functioning similarly to naturally occurring immune complexes. When activated by a potent activator, such as Quidel's Complement Activator, nearly all the C4 in a given complement source may be converted into cleavage products.

The activity of the resulting complement activator is assessed using the MicroVue C4d EIA kit. 10 µl of Activator is incubated with 1.0 mL of a reference serum (Normal Human Serum Complement, Cat. A113) at 37°C for 90 minutes. At fixed time points, samples of the reference serum are taken. Ice cold 20 mM EDTA is added to each sample to block further complement activation; the samples are stored on ice until assay. Upon completion of the activation phase, the resulting samples are assayed in the MicroVue C4d kit. The results (µg C4d/mL) are graphed vs. time for each sample. Full activation is shown by a rapid increase in C4d concentration followed by a plateau. Quidel's complement activator will fully activate the classical complement pathway of the reference sera within 30 minutes at 37°C.

Specifications

Catalog Number: A114
Protein Concentration: ~ 50 mg/ml
Volume/Vial: 0.2 ml/vial
Storage: ≤ -70°C
Buffer: Phosphate Buffered Saline
(pH 7.3, 20 mM CaCl and MgCl)

Ordering and Additional Information

To learn more about this and other Quidel products visit our website www.quidel.com or contact Technical Services at 1.800.874.1517

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