

## C1 (Esterase) inhibitor, for *IMMAGE*<sup>®</sup> 800

### General information: structure, function ...

C1 Inhibitor, or C1 (Esterase) Inhibitor, is a glycosylated protein with a molecular weight of approximately 105 KDa, whose main function is to inhibit the complement system in order to prevent its spontaneous activation.

C1 Inhibitor irreversibly binds to and inactivates C1r and C1s proteases in the C1 complex of classical pathway of complement. Other proteases of the lectin pathway are also inactivated as well as Factor XII (FXIIa), Kallikrein, and Factor XI.

C1 Inhibitor is also an acute-phase protein which is elevated during inflammation or infections.

### Clinical Significance

C1 inhibitor deficiency is associated with hereditary or acquired angioedema. In 85% of cases, levels are reduced (5-30% of their normal value), while the remaining 15% show normal levels but the protein is dysfunctional. The additional measurement of C1q is crucial for the differentiation between hereditary or acquired angioedema, because normal levels are found in hereditary angioedema while reduced levels occur in acquired angioedema.

Low levels of C1 inhibitor also predispose to autoimmune diseases, most markedly Lupus Erythematosus (SLE), due to its consumptive effect on C3 and C4 complement components.

### Assay Performances and Characteristics

- **Non-competitive NIPIA Assay:** Kinetic Immunoassay, for their use on *Beckman Coulter's IMMAGE*<sup>®</sup> 800 Immunochemical Systems.
- Reagents, prediluted Calibrators and Controls in ready-to-use containers.
- Designed to use original *Beckman Coulter's Buffer 1 (BUF1)* (P/N: 447650).
- Excellent precision and reproducibility (CV < 4%) over the entire measuring range.

### Catalogue

## 3diag - C1IN - 800 Kit

REF TD-42580

▽ 100 test

P/N *Beckman Coulter*: **B28033**

Contains Reagents, prediluted Calibrators (6 levels) and Controls (2 levels)

Also available for other analytical platforms. For further information, please contact the Customer Support Service at [support@3diag.com](mailto:support@3diag.com)