

## Normal Human Serum Complement

For **Research Use Only**. Not for use in diagnostic procedures

### Background

Quidel human serum complement is a uniform pool of human serum complement that has been characterized for levels of complement activation fragments (complement split products) as well as CH50. Because the anticoagulants used in the preparation of plasma (EDTA, ACD and even heparin) can interfere with complement activation *in vitro*, serum has long been used as a human complement source for experimentation. Many commercially available sera, however, are not processed appropriately to conserve complement activity. Lyophilization and plasma recalcification can raise background levels of complement split products (SC5b-9 or TCC, iC3b, Bb, C4d and particularly the anaphylatoxins C3a, C5a and C4a) and decrease CH50. Sera, however, must be processed quickly and correctly to prevent complement turnover. For this reason, sera obtained from blood banks and other large pools may not be suitable for many experimental procedures. Conversely, in house serum draws are complicated by several factors including the necessity of maintaining standardized pools of complement for ongoing experimentation and the confidentiality requirements relating to infectious disease testing. Quidel Normal Human Serum Complement is designed to address these specific issues.

### Storage and Handling

This product should be stored at or below  $-70^{\circ}\text{C}$ . When needed, it should be thawed rapidly at  $37^{\circ}\text{C}$  and immediately placed on ice until use. Any remaining sera should be aliquotted into polypropylene tubes in a convenient volume and re-frozen at  $-70^{\circ}\text{C}$  or below. Avoid repeated freeze thaw. **Storage at temperatures warmer than  $-70^{\circ}\text{C}$  is not recommended.**

### Applications

Normal human serum complement is suitable for *in vitro* experiments relating to complement activation. It has been widely used in biomaterials research, pharmaceutical development and cytotoxicity assays. It is ideal for experiments and assays for which a high level of *in vitro* complement activity is necessary or a low level of complement activation fragments is required.

### Specifications

- Volume/vial: 2.5 mL/5.0 mL
- Storage:  $\leq -70^{\circ}\text{C}$
- Form: Frozen Liquid

### References

- <sup>1</sup>Idusogie, E. E., Presta, L., et al. Mapping of the C1q binding site on Rituxan, a chimeric antibody with a human IgG1 FC. *J. Immunol* 164:4178-4184 (2000).
- <sup>2</sup>Hinton, PR., Xiong, J., et al An Engineered Human IgG1 Antibody with Longer Serum Half-Life. *J Immunol* 176:346-356 (2006).

<sup>3</sup>Dall'Acqua, W.F., Cook, K.E., et al. Modulation of the Effector Functions of a Human IgG1 through Engineering of Its Hinge Region. *J Immunol* 177:1129-1138 (2006).

Also available:

MicroVue™ iC3b EIA – Cat. #A006  
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MicroVue SC5b Plus EIA – Cat. #A020  
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