



## Guinea Pig Serum

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

### Background

Quidel guinea pig serum complement is a uniform pool of guinea pig serum that has been characterized for both classical and alternative pathway activity.

Guinea pig serum has been in use from the beginning of the twentieth century to the present for the study of complement activity and its relationship to immunity.<sup>1,4</sup> The discovery of guinea pigs deficient in specific complement fragments has furthered this research. Guinea pig serum is recommended by both the U.S. and European Pharmacopoeia for testing the anticomplementary activity of immunoglobulin.

### 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

Guinea pig serum complement is suitable for *in vitro* experiments relating to complement activation. It has been widely used in biomaterials research and pharmaceutical development. 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: 50 mL
- Concentration:  $> 40$  mg protein/mL
- Activity:\*  $> 100$  CH50 units/mL  
 $> 50$  AH50 units/mL
- Form: Frozen Liquid

\*CH50 units have been normalized to indicate 50% lysis of  $1 \times 10^8$  cells/mL. AH50 was determined using red blood cells at a concentration of  $2 \times 10^7$  cells/mL.

### References

- <sup>1</sup>Moore, H.D. Complementary and opsonic functions in their relation to immunity: A study of the serum of guinea-pigs naturally deficient in complement. *J. Immunol* 4:425-441 (1919).
- <sup>2</sup>Hyde R.R. and Parsons E.I. Quantitative interdependence of sensitiz-er and complement in hemolysis. *Am. J. Epidemiol.* 7(1):11-21 (1927).
- <sup>3</sup>Muller F. and Segerling M. A factor in guinea-pig serum with acceler-ating effect on immune immobilization of *Treponema pallidum* (IAF): Isolation, purification and differentiation from the known haemolytic complement components and from lysozyme. *Immunology* 27:33-41 (1974).
- <sup>4</sup>Wooley, R.E. et al. Comparison of chicken plasma and guinea pig serum in a quantitative microtiter method of determining microbial complement resistance. *Avian Diseases* 35(4):897-900 (1991).

Also available:

Human Complement Standard – Cat. #A100

Normal Human Complement (2.5 mL) – Cat. #A112

Normal Human Complement (5.0 mL) – Cat. #A113

Complement Activator – Cat. #A114

Complement Sample Panel – Cat. #A115

