

# BIOLOGICAL PRODUCTS

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## Guinea Pig Complement Serum

### PRODUCT

Blood is collected by from healthy adult guinea pigs by cardiac puncture as approved by the IMVS Animal Ethics Committee. The blood from individual animals is collected into separate containers which may be plain or contain a clotting accelerant. The blood is allowed to clot and then processed rapidly to preserve complement activity. After centrifugation and separation from the clot the serum is pooled, 0.2µm filtered and dispensed into vials of the nominated volume. The vials are then either frozen at -70°C, lyophilised, or may have Richardson's solution added (80% serum and 20% Richardson's Solution).

### APPLICATION AND ACTIVITY

For use as a reagent in complement fixation tests (CFT) and other similar immunological assays that require complement to bring about cell lysis. It can also be used as normal guinea pig serum in other immunological or biological applications.

All guinea pig serum sold as complement is titrated and provided with an assay certificate stating the minimum titre in CH<sub>50</sub> units

The CH<sub>50</sub> unit for complement is defined as the volume (in ml) of serum that will result in 50% haemolysis of a standardised suspension of antibody-sensitised sheep red blood cells for 30 minutes at 37°C in a final volume of 1.0 ml.

Haemolytic Titre: the number of CH<sub>50</sub> units in one ml of undiluted serum. This is calculated as the reciprocal of the dilution which results in 50% haemolysis of a standardised red cell suspension. It is recommended that each new batch be tested prior to use to determine the optimal dilution in individual applications and assay systems.

### Reference

The procedure to be followed is the method according to Bovine Brucellosis – Serology, Complement Fixation Test (CFT) procedure, as found in the manual "Australian Standard Diagnostic Techniques for Animal Diseases" published by Standing Committee on Agriculture and Resource Management (1993) Eds. LA Corner & TJ Bagust.

### RECONSTITUTION AND USE

Reconstitute the lyophilised product with 2 ml of cold distilled water. Gently swirl to speed up rehydration and stand for at least 10 minutes before use.

Defrost the frozen product and keep chilled during and after use to preserve activity.

The reconstituted or thawed serum should be aliquoted into smaller lots (eg 200µL) and frozen below minus 20°C. Minus 70°C is recommended for long term storage. Significant activity may be lost if kept at 4°C for more than a day.

### PACKAGING AND STORAGE

The lyophilised product is shipped on chill packs. Stable up to 2 years when stored at 2-8°C. The frozen product is shipped on dry ice. Stable for at least 2 years when stored below minus 20°C. The fresh product is shipped on chill packs. May be stable for several weeks when stored at 2-8°C.

### CAUTION

This product is for **in vitro laboratory use only**, and must not be used in any therapeutic or test procedures involving humans or animals. Do not ingest and avoid direct contact with serum. Although this is normal serum collected from healthy animals, the usual safety precautions when handling material of biological origin should be followed. All materials should be considered to be potentially infectious and handled and disposed of with proper precautions.



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