



## **Data sheet** *Clostridium septicum* toxin

Benten Biotech SRL  
Parque Tecnológico- LATU.  
Montevideo, Uruguay  
CP 11500

**1. Reagent name:** *Clostridium septicum* toxin

**2. Strain or resource:** Not apply

**3. Lot number:** TCSe 002/19

**4. Fill date:** Jul. 2019

**5. Expiration date:** The expiration date was not evaluated. According to the literature, the toxin is very stable and could be active for several years.

**Precautions:** This reagent does not represent a risk for laboratory personnel working with the toxin if fundamental laboratory techniques are followed.

**6. Intended to use:** Used as a standard antitoxin when evaluating *C. septicum* toxin in the neutralization test in mice.

### **7. Instruction for use:**

Mouse assay: TCSe 002/19 diluted 1:18 is considered the standard toxin dilution when conducting toxin-neutralization tests in mice. The dilution is prepared by adding 2 mL of peptone diluent (1.0% peptone, 0.25% sodium chloride, pH 7.2) to the TCSe 002/19 freeze dry toxin vial. Make the first dilution 1/10, dilute 0,5 mL of well mixed TCSe 002/19 in 4,5 mL of peptone diluent. The L+ dose is prepared by adding 1 ml of 1/10 TCSe 002/19 toxin dilution and 0,8 ml of peptone diluent.

The Lo dose is prepared by adding 1 ml of 1/10 TCSe 002/19 toxin dilution and 1,2 ml of peptone diluent. *C.septicum* TCSe 002/19 toxin diluted 1:10 is stable when stored at -70°.

### **8. Reagent test:**

Determination of toxin titer- Doses Lo and L + were established by injecting mice intravenously with 0.2 ml of a mixture of varying amounts of TCSe 002/19 combined with 1 international units (IU) of *C. septicum* alpha antitoxin. Dose 1 Lo for the *C. septicum* alpha antitoxin toxin neutralization test is the highest amount of toxin that can be mixed with 1 IU antitoxin and not cause death in injected mice within 72 hours. The 1 L + dose for the *C. septicum* alpha antitoxin-toxin neutralization test is the minimum amount of toxin that can be mixed with



1 IU of *C. septicum* alpha antitoxin and cause death in at least 80% of mice injected into the 72 hours.

*Determination of LD50* - Female mice weighing 16-20 g were injected intraperitoneally with 0.5 mL of toxin diluted in peptone diluent.

*Sterility test:* For the *Clostridium septicum* toxin, the absence of viable bacteria and fungi was analyzed according to the procedures described in 9 CFR (USA).

**9. Container size, type, weight or volume:** 10 mL vial containing 2 ml of lyophilized toxin.

**10. Storage conditions:** store at -80 °C.

**11. Technical contact Benten Biotech:** Quality Control Section, +59899178546.

**12. Origin and history of passage:** *C. septicum* culture ATCC 8065, used to produce TCS<sub>e</sub> 002/19, was obtained from ATCC. The number of passages is unknown.

**13. Preparation method:** Culture ATCC 8065 was grown in a 2.5 -litre Sartorius Biostat A fermentor containing media consisting of proteose, yeast extract, tryptone.

Actively growing culture was aseptically added to the fermentor and incubated at 35°C for approximately 4 hours. The culture was centrifuged 4,000 x g for 60 minutes and the supernatant was passed through 1.2, 0.8, 0.4 and 0.2 µm Sartorius sterile filters. The filtrate was further concentrated then times by 10 KDa ultrafiltration Millipore pellicon cassette. The concentrated toxin was adjusted to pH 6.8 and passed through a 0.2 µm Sartorius filter. Sterile skim milk was added to the product at a final concentration of 50% v/v and 1:10000 thimerosal was added and toxin was fractionated in 2 mL each vial. The vials were freeze-dried with Christ equipment.

**14. Other:** Transport according to UN3172 (Biological Toxins).

Reagent orders and feedback to the following email address: [info@bentenbiotech.com](mailto:info@bentenbiotech.com)

**REVISED:** July 2021