



**LIST BIOLOGICAL  
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Product #191A  
Lot #19127A1  
Release Date: Oct 2017  
Recommended Retest Date: Oct 2020

CERTIFICATE OF ANALYSIS  
TETANUS TOXOID  
From *Clostridium tetani*  
Lot #19127A1

**Contents**

Each vial, when reconstituted with 50  $\mu$ l of water, contains 25  $\mu$ g of tetanus toxoid in 100 mM Histidine, 100 mM NaCl, pH 7.0 and 5% Trehalose. **Handle product gently, do not vortex.**

**Concentration**

Protein concentration is determined by absorbance at 280 nm using an extinction coefficient of 1.24 for a concentration of 1 mg/ml.

**Toxicity**

This product is produced from tetanus toxin by inactivation with formaldehyde. At the highest dose tested (15  $\mu$ g/mouse), all CF-1 mice survived the test period and gained weight. No signs of illness or spastic paralysis were observed during the seven day observation period.

**Assay Results**

In immunodiffusion studies, tetanus toxoid showed immunoprecipitation with an antiserum specific to tetanus toxoid.

The endotoxin content, determined by a kinetic chromogenic LAL assay, is <3 EU/mg.

**Packaging and Storage**

Tetanus toxoid is supplied as a lyophilized powder, sealed under vacuum. Store at 2-8°C prior to reconstitution. Following reconstitution, aliquot and freeze.

**Handling**

Good laboratory technique should be employed in the safe handling of this product. Wear appropriate laboratory attire including a lab coat, gloves and safety glasses. Nitrile gloves are recommended for use when handling lyophilized material.

This product is intended for research purposes by qualified personnel. It is not intended for use in humans or as a diagnostic agent. List Biological Laboratories, Inc., is not liable for any damages resulting from the misuse or handling of this product.

**FOR RESEARCH PURPOSES ONLY. NOT FOR HUMAN USE**

Production: KD Date: 10/9/17 Management: NS Date: 10/9/17 QA/QC: ERP Date: 10/9/17

Made in U.S.A.

