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## Certificate of Testing

### Tetanus Toxoid from *Clostridium tetani*, Lyophilized in Buffer

Prod. No: 191B Lot Number: 19133A4

Date of Manufacture 14 February 2024 **FOR RESEARCH PURPOSES ONLY.  
NOT FOR HUMAN USE.**

#### Contents

Each container holds 100 µg of lyophilized tetanus toxoid. When reconstituted with 200 µL of water the protein is in 100 mM Histidine, 100 mM NaCl, pH 7.0 and 5% Trehalose.

#### Storage/Shipping Requirements

Store at 5 ± 3 °C. This product is provided as an aseptically packaged lyophilized powder, sealed under vacuum. Ship material at ambient temperature.

#### 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.

The 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.

Attribute	Test Method ID/Version	Results
Appearance	Physical Appearance / ASSAY.063 v05	Before reconstitution: uniform white pellet After reconstitution: clear, colorless, and particulate free
Purity	SDS-PAGE / GELS.018 v18	Non-reduced: 72% purity Reduced: 77% purity
	OD Measurement / ASSAY.060 v07	A <sub>280</sub> /A <sub>260</sub> : 1.9 A <sub>320</sub> : 0.01
	Endotoxin / ASSAY.092 v06	12.62 EU/mg
Identity	Immunodiffusion / ASSAY.019 v05	Lowest concentration of toxoid at which immunoprecipitation was observed: 31.3 µg/mL
Activity	Mouse Lethality	No death or illness at 15 µg of toxoid per mouse (performed on the bulk lot #19133A)

Quality Control:  Date: 04/02/2024

Production:  Date: 04/02/2024