list labs
540 Division Street, Campbell, California 95008-6906
Tel. (408) 866-6363 Fax (408) 866-6364
www.listlabs.com

Certificate of Testing

Tetanus Toxin

Prod. No: 190A **Lot Number:** 19052A1

Date of Manufacture 17 September 2026 **FOR RESEARCH PURPOSES ONLY. NOT FOR HUMAN USE.**

Contents
Each container holds 25 µg of lyophilized Tetanus Toxin in 20 mM HEPES, pH 7.4 with 1.25% Lactose when reconstituted with 0.1 mL water. **Handle the product gently; do not vortex.**

Storage/Shipping Requirements
Store at 5 ± 3°C. This product is provided as an aseptically packaged lyophilized powder, sealed under vacuum. Ship material on blue ice.

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 v6.0	Before reconstitution: uniform white pellet, free of foreign material After reconstitution: clear, colorless, fully dissolved, and particulate free
Purity	SDS-PAGE / GELS.018 v19.0	Non-reduced: ~150 kDa band at 56.1% purity Reduced: ~100 + ~50 kDa bands at combined 73.2% purity
	OD Measurement / ASSAY.060 v07	A_{280}/A_{260}: 1.81 A_{320}: 0.02
	Endotoxin / ASSAY.092 v7.0	13.5 EU/mg
Activity	Hemagglutination Assay / ASSAY.011 v6.0	Lowest concentration with positive response: 0.0125 mg/mL
	FRET Assay / ASSAY.166 v1.0	Kinetics of 100 nM of Tetanus Toxin: 0.010 RFU/sec Kinetics of 200 nM of Tetanus Toxin: 0.022 RFU/sec

NOTE: Each laboratory should determine the optimum dosage in a particular application. Refer to toxicity activity results for baseline determination.

Made in U.S.A.

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Recommendations

List Labs recommends that any person who may potentially become exposed to this Toxin should be currently vaccinated with tetanus toxoid.

The Toxin should be controlled and maintained in full compliance with biosafety level 2 or 3 standards, whichever is required based on customer's utilization. Such standards are described in "Biosafety in Microbiology and Biomedical Laboratories" HHS Publication No. (NIH) 88-8395, 2nd edition, May 1988 and as the same may be amended or superseded.

Personnel who come into contact with the Toxin shall be full trained and qualified in its handling and use.

Quality Control: _____ Date: 18NOV26

Production: _____ Date: 11/18/2026

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