



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

Certificate of Testing

Anthrax Protective Antigen (PA) from *Bacillus anthracis*

Prod. No: 171E Lot Number: 17121A2

Date of Manufacture 25 August 2022 **FOR RESEARCH PURPOSES ONLY.
NOT FOR HUMAN USE.**

Contents

Each container holds 0.5 mg of lyophilized Anthrax Protective Antigen (PA) in 5 mM HEPES, 0.05 M NaCl, pH 7.5 when reconstituted with 0.5 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 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	%purity = 97%
	OD Measurement / ASSAY.060 v07	$A_{280}/A_{260} = 2.00$ $A_{320} = 0.01$
Potency	Endotoxin / ASSAY.092 v06	0.068 EU/mg
Activity	Cytotoxic Activity; PA alone on J774A.1 cell culture / ASSAY.062 v03	No cell death at highest concentration of PA tested at 1,088,613 pM
	Cytotoxic Activity; PA with 1µg/mL of Anthrax Lethal Factor on J774A.1 cell culture / ASSAY.062 v03	Cytotoxicity $EC_{50} = 3.57$ ng/mL

Quality Control:  Date: 12/19/2022

Production:  Date: 12/19/2022