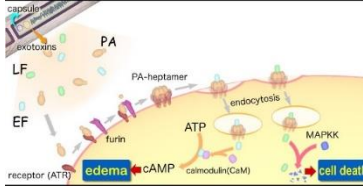


**Anthrax Vaccines Antibody ELISA Kits, Recombinant Proteins, Peptides and Antibodies**



**Anthrax** is a zoonotic disease caused by the spore-forming bacterium **Bacillus anthracis**. The disease most commonly occurs in wild and domestic mammals (e.g., cattle, sheep, goats, camels, antelope, and other herbivores). Anthrax occurs in humans when they are exposed to infected animals or tissue from infected animals or when they are directly exposed to *B. anthracis* or the spores. Depending on the route of infection, anthrax disease can occur in three forms: **cutaneous, gastrointestinal, and inhalation**. *B. anthracis* spores can remain viable and infective in the soil for many years.



*B. anthracis* has also been manufactured as a biological warfare agent because of the ability of its spores to be transmitted by the respiratory route, the high mortality of inhalation anthrax, and the greater stability of *B. anthracis* spores compared with other potential biological warfare agents. *B. anthracis* evades the immune system by producing an anti-phagocytic capsule. In addition, *B. anthracis* produces three proteins - **protective antigen (PA), lethal factor (LF), and edema factor (EF)** - that act in binary combinations to form two exotoxins known as lethal toxin and edema toxin. PA and LF form lethal toxin; PA and EF form edema toxin. LF is a protease that inhibits mitogen-activated protein kinase-kinase. PA is required for binding and translocating LF and EF into host cells. PA is an 83 kD protein (**PA83**) that binds to receptors on mammalian cells and is critical to the ability of *B. anthracis* to cause disease. After binding to the cell membrane, PA is cleaved to a 63 kD fragment (**PA63**) that subsequently binds with LF or EF and undergoes receptor-mediated internalization, translocation into the cytosol.



An improved **vaccine** for livestock, based on a live non encapsulated avirulent variant of *B. anthracis*, has served as the principal veterinary vaccine. **AVA, Anthrax Vaccine Adsorbed (Biothrax)**, the only licensed human anthrax vaccine in the United States. The filtrate contains a mix of cellular products including PA83 and is adsorbed to aluminum hydroxide (**Alum**) as adjuvant. The amount of PA and other proteins per 0.5mL dose is unknown, and all three toxin components (LF, EF, and PA) are present in the product. More advanced vaccines are based upon recombinant purified PA83 proteins (**Vaxgen**). ADI has cloned, expressed, and purified various recombinant proteins of anthrax (PA, EF, LF) made antibodies in various animal, develop antigen determination kits, and antibody kits for testing various vaccines.

**Anthrax vaccine Related ELISA kits ordering Information**

ELISA Kit Description	Kit Type	Species	Total Ig's Cat#	IgG Specific Cat#
<b>Anthrax Vaccine Protective Antigen 83 (PA83) antibody ELISA kits</b>  Notes: Antibody ELISA kits are designed to detect either total Ig's (A+G+M) or total IgG (no IgA or IgM) or IgM antibody isotypes. It is possible to custom order total Ig's or IgG or IgM for other species.	PA83 Antibody	Human	900-160-83T	900-165-83G
		Mouse	900-100-83T	900-105-83G
		Monkey	900-150-83T	
		G. pig	900-140-83T	
		Rabbit	900-120-83T	
		Sheep		900-170-83G
<b>Humanized Antibody ELISA kit (bioactivity test)</b>	Humanized anti-PA antibody		900-155-HPA	
PA83 Protective Antigen 83 (PA83) ELISA Kits	PA83 Antigen		# 800-110-P83 (PA83)	
PA83 Rapid Test, 25/pk (results in 2-5 mins)			# 800-100-RDT	
Vaccigel Anthrax Protective Antigen 83 (PA83) Protein Adsorbed on Alum, ELISA kit for 50 tests			# VAC-P83-50	
<b>Anthrax Vaccine Anti-Edema Factor (EF) Antibody ELISA kits</b>	EF Antibody (Ab)	Human		900-310-EFH
		Rabbit	900-320-EFR	
		Mouse	900-300-EFM	
		Monkey		900-380-EFM
		Bovine		900-340-EFB
Edema Factor (EF) Protein ELISA kit, Quantitative, 96 tests	EF Antigen		# 800-130-EF	
<b>Anthrax Vaccine Anthrax Lethal Factor (LF) antibody ELISA kits</b>	LF Antibody (Ab)	Mouse	900-200-LFM	
		Human		900-220-LFH
		Rabbit		900-220-LFR
		Monkey		900-280-LFM
Lethal Factor (LF) Protein ELISA kit, Quantitative, 96 tests	LF Antigen		# 800-120-LF	

Anthrax PA83, LF, EF IgG/IgM negative and positive sera (human, cow, bison, deer, elk, mouse, goat, and sheep are also available. ADI also offers custom testing of anthrax antigens or antibodies in human and animal samples. ADI is also producing kits to measure PA83, EF or LF proteins in vaccines that are formulated in Alum or Alhydrogel. Please contact ADI.

## Anthrax Vaccines Antibody ELISA Kits, Recombinant Proteins, Peptides and Antibodies

(See Details at the website) [http://4adi.com/commerce/catalog/spcategory.jsp?category\\_id=2720](http://4adi.com/commerce/catalog/spcategory.jsp?category_id=2720)

Item	Catalog#	Product Description	Product Type
Anthrax Receptors (ATR)	ATR11-A	Rabbit Anti-Human Anthrax Toxin Receptor 1, aff pure IgG # 1	Antibodies
	ATR12-A	Rabbit Anti-Human Anthrax Toxin Receptor 1, aff pure IgG # 2	Antibodies
	ATR31-A	Rabbit Anti-Human Anthrax Toxin Receptor 3, aff pure IgG #1	Antibodies
Cell wall	CWBA-1	Cell wall, semi pure (B. Anthracis)	Protein
Anthrax EF	EF11-A	Goat Anti-Edema factor (B Anthracis) IgG	Antibodies
	EF12-A	Rabbit Anti-B. Anthracis Edema factor (EF) (C-terminal peptide) IgG#2	Antibodies
	EF25-R	Purified Recombinant Anthrax Toxin Edema Factor protein	Rec. Protein
Anthrax LF	LF11-M	Monoclonal Anti-Anthrax Lethal factor antigen IgG #1, aff pure	Antibodies
	LF14-A	Rabbit Anti-B. Anthracis Lethal factor (LF) recombinant protein antiserum	Antibodies
	LF15-R	Purified Recombinant Anthrax Lethal Factor protein	Rec. Protein
	LF16-A	Goat Anti-lethal factor (B Anthracis) IgG	Antibodies
	LFPI-4	LF protease Inhibitor-1, Cell permeable, 14aa MEK2 analog, competitive inhibitor of LF	Peptide
	LFPS-1	LF Substrate 1, Internally quenched for monitoring LF protease activity (19aa)	Peptide
	LFPS-2	LF Protease Substrate 2, pNA derivative MEk2 peptide substrate (14aa)	Peptide
	LFPS-3	LF Protease Substrate 3, AMC derivative MEK2 peptide substrate (14aa)	Peptide
Anthrax PA83	PA83-R	Purified Recombinant Anthrax Protective Antigen (83 kD)	Rec. Protein
	PA11-M	Monoclonal Anti-Anthrax Protective antigen (PA83) IgG # 1, aff pure	Antibodies
	PA16-A	Goat Anti-Protective Antigen 83 (PA83; B Anthracis) IgG	Antibodies
	PA17-A	Rabbit Anti-B. Anthracis Anthrax protective antigen 83 (PA83) (C-terminal peptide) IgG	Antibodies
	PA18-S	Rabbit Anti-B. Anthracis Anthrax protective antigen 83 (PA83) recomb. Protein antiserum	Antibodies
	PA20-R	Purified Recombinant Anthrax Protective Antigen (20 Kda)	Rec. Protein
	PA63-R	Purified Recombinant Anthrax Protective Antigen (63kD)	Rec. Protein
Spores	SA11-A	Rabbit Anti-Anthrax Spore extract antigen (90 kda), aff pure IgG #1	Antibodies
	SA12-M	Monoclonal Anti-Anthrax Spore extract antigen IgG # 2, aff pure	Antibodies
PA83 IgG control sera	900-100-02P	Human Anti-Anthrax Protective Antigen 83 (PA83) Protein IgG positive control	Disease Sera
	900-100-01N	Human Anti-Anthrax Protective Antigen 83 (PA83) Protein IgG negative control	Disease Sera
	900-120-02P	Human Anthrax Lethal Factor (LF) Protein IgG negative control	Disease Sera
	900-120-01N	Human Anti-Anthrax Lethal Factor (LF) Protein IgG negative control	Disease Sera

Anthrax\_Vaccine\_Flr

Rev. 160604A

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