



Product Specification Sheet

Cat # YSP21-A Rabbit anti-Virulence associated V antigen (anti-Lcrv) antibody, affinity pure **SIZE: 100 ug**

Yersinia pestis is a zoonotic pathogen that is most commonly transmitted through fleas that feed on infected rodents. *Y. pestis* is a Gram-negative, non-motile, non-spore-forming coccobacillus that is also a facultative anaerobe. In the past, this pathogen ravaged cities throughout Europe, Asia, and Africa, taking thousands of lives with sudden outbreaks. Without proper antibiotic treatment, infection by *Y. pestis* led to death within a few days. Humans are infected through the bite of an infected flea or by inhalation of bacteria-infested droplets. The infection exists in three major plague forms: bubonic, septic, and pneumonic. The bubonic plague is the most common form of infection and targets the victim's lymphatic system. After being taken up by macrophages, the bacteria proliferate in the affected lymph nodes, causing inflammation and swelling to occur, i.e., buboes. The septic plague courses through the body via the bloodstream, disseminating from infected lymph nodes. Victims of septic plague are usually covered with black patches due to hemorrhages throughout the skin, leading to its "Black Death" nickname. Occasionally, *Y. pestis* causes infection of the lungs, resulting in the pneumonic plague. What distinguishes the plague from other invasive, systemic, and infectious diseases is that the bacteria replicate extracellularly in tissues following lysis of macrophages and hence, the microbial population in the affected host is enormous. Victims were not likely to survive plague without treatment.

Yersinia pestis is most famous for causing the "Black Plague" which resulted in an estimated 50 million deaths in the 14th century. Currently an inactivated form of the bacteria exists which is used as a vaccine. The vaccine is only administered to high-risk personnel as it isn't considered safe. Antibiotics can also be used to treat *Yersinia Pestis* but only if caught early in the infection cycle. Due to mutations leading to resistance to the antibiotics other forms of immunity are being researched. Subunit vaccines utilizing the Virulence associated V antigen (Lcrv) and F1 capsule antigen (Caf1) antigen have shown complete protective immunity in animal models.

Source of Antigen, Antibodies, and positive controls

Antigen	<i>Yersinia pestis</i> Virulence-associated V antigen (YSP21-R-50)
Antibody	Rabbit, Polyclonal, affinity purified IgG
Host/type	(#YSP21-A)
Secondary antibody	Anti-rabbit IgG-HRP cat # 20320 (AP, biotin, FITC conjugates also available)
Negative control IgG	# 20009-1, Rabbit (non-immune) IgG, purified, suitable for ELISA, Western, IHC as -ve control

Form & Storage of Antibodies

Affinity pure IgG

100 ug/200 ul Solution Lyophilized

Supplied in buffer: PBS + 0.1% BSA

Reconstitute powder in 200 ul water

Storage

Short-term: unopened, undiluted liquid vials at 4°C

Long-term: at -20°C or below in suitable aliquots after reconstitution. Do not freeze, thaw, and store working, diluted solutions.

Stability: 6-12 months at -20°C or below.

Shipping: 4°C for solutions and room temperature for powder

Recommended Usage

Western Blotting 0.5-2 ug/ml

ELISA: 0.5-10 ug/ml

Histochemistry & Immunofluorescence: 1-10 ug/ml

This product is for in vitro research use only.

Related Material available for ADI

Catalog#	Description
000-CUS	Custom development of ELISAs for other species or antibody isotypes not listed in the catalogue. Custom testing of samples for IgG/IgM/IgA or total (IgG+IgM+IgA).
YSP31-R-100	Recombinant E.coli <i>Yersinia Pestis</i> F1 capsule antigen (caf1) (<95% pure, His-tag, full length)
YSP21-A	Rabbit anti-Virulence associated V antigen (anti-Lcrv) antibody, affinity pure
YSP31-A	Rabbit anti-F1 capsule antigen (anti-caf1) antibody, affinity pure
YSP21-R-50	Recombinant E.coli <i>Yersinia Pestis</i> Virulence-associated V antigen (Lcrv) (<95% pure, His-tag, full length)
	ELISA kits for the detection of antibodies to Caf1 and Lcrv in various species are also available

YSP21-A 250407 180625AC