

▶ Anthrax LF (5F502.2): sc-52914

BACKGROUND

The genus *Bacillus* consists of aerobic, Gram-positive, spore-forming, rod-shaped bacterium. *Bacillus anthracis* causes anthrax, an acute infectious disease of cattle, sheep, goats, camels, antelopes and other herbivores that is highly lethal in some forms. *B. anthracis* spores can persist in the soil for many years as they are resistant to heat, cold, radiation, desiccation and disinfectants. The anthrax toxin produced by *Bacillus anthracis* has two components: edema factor (EF) and lethal factor (LF). The EF inactivates neutrophils so that they cannot phagocytose bacteria, and the LF, a zinc-dependent metalloprotease, cleaves the mitogen activated protein kinase (MAPKK) enzymes of the MAPK signaling pathway, thereby impairing their function. The overall result is an impaired innate and adaptive immune response with an overproduction of TNF- α and interleukin-1- β , ultimately leading to septic shock and death. The anthrax lethal factor also targets endothelial cells, causing vascular leakage and ultimately hypovolemic shock.

REFERENCES

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SOURCE

Anthrax LF (5F502.2) is a mouse monoclonal antibody raised against synthetic Anthrax LF corresponding to amino acids 779-792 of *Bacillus anthracis* origin.

PRODUCT

Each vial contains 100 μ g IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

Anthrax LF (5F502.2) is recommended for detection of Anthrax LF of *Bacillus anthracis* origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000).

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.