



IBT BIOSERVICES

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S. aureus LukS-PV (His-tag)

Catalog #: 0530-001

Lot #: 1108003

Description: Purified, His-tagged *Staphylococcus aureus* Panton-Valentine Leukocidin (PVL) S subunit (LukS-PV). The theoretical molecular weight of the protein is 33,713 Daltons including the His-tag.

Storage: 2-3 weeks at -20°C, -80°C long term

Size: 100 ug of protein is supplied in PBS + 15% Glycerol at a concentration of 1 mg/mL. Protein demonstrates a molecular weight of approximately 30 kDa.

Relevance: This protein may be used in functional PVL toxicity assays in combination with LukF-PV, or as a control protein in ELISA assays or Western blotting when detecting LukS in PVL (+) strains of *S. aureus*.

Recommended Dilutions:

ELISA: Assay-dependent dilution; internal QC demonstrates detection down to 1 ng/mL of LukS-PV protein when detected with mouse anti-LukS monoclonal antibody (cat # 0221-001) as capture and rabbit anti-LukS polyclonal antibody (cat# 04-0009) as a secondary followed by anti-rabbit horseradish peroxidase conjugate and substrate.

WB: Assay-dependent dilution; internal QC demonstrates detection of 1 ng of LukS-PV protein when detected with anti-PVL LukS polyclonal antibody (cat# 04-0009) in Western blotting.

PVL Cytotoxicity assay: Cytotoxicity can be detected in human neutrophils when used in combination with LukF-PV in a concentration range of 1-100 nM.

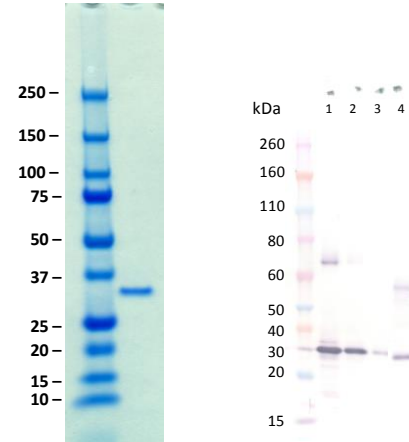
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SDS-PAGE and Western Blot Detection



(A)

(B)

(A) SDS-PAGE of 500 ng of LukS-PV-His Tag. (B) Western blot detection of LukS-PV at 50 ng (1), 10 ng (2), and 1 ng (3) as well as 15 μ L of *S. aureus* USA300 strain 24 hour culture supernatant (4) when detected with IBT's anti-LukS-PV polyclonal antibody at 0.5 μ g/mL and an anti-rabbit alkaline phosphatase conjugate followed by substrate. The LukS from the culture medium is not his-tagged and therefore migrates at a slightly lower molecular weight. A second band at between 50-60 kDa is also visible. This most likely is interaction of the antibodies with Protein A shed into in the media by the USA300 strain.

Related Products:

Anti- *S. aureus* PVL LukS Polyclonal Antibody
Catalog # 04-0009

Anti- *S. aureus* LukS-PV Monoclonal Antibody
Catalog #0221-001

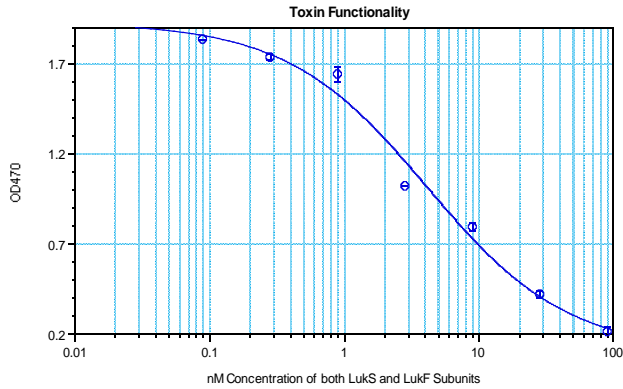
Anti- *S. aureus* Alpha-Hemolysin Polyclonal Antibody
Catalog # 04-0010

S. aureus LukF-PV Catalog # 0530-002



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Toxin Functionality: Human promyelocytic leukemia cell line HL60 was differentiated into neutrophils by treatment with DMSO. Neutrophils were incubated with serial dilutions of LukS and LukF at equimolar concentration for 48 hours at 37°C with 5% CO₂ and 95% humidity. Cellular viability was determined by adding XTT and incubation for additional 6 hours. Cells were centrifuged and the OD determined in the supernatants at 470nm. EC₅₀ was found to be 4.09 nM of each toxin subunit.

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