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S. aureus LukS-PV (tag-free)

Catalog #: 0540-001

Lot #: 1805003

Description: Recombinant, purified, tag-free *Staphylococcus aureus* Panton-Valentine Leukocidin (PVL) S subunit (LukS-PV). The theoretical molecular weight of the protein is 32,465 Daltons.

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

Size: 100 µg of protein is supplied in PBS plus 5% glycerol at a concentration of **1.291 mg/mL**. Protein demonstrates a molecular weight of approximately 35 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:

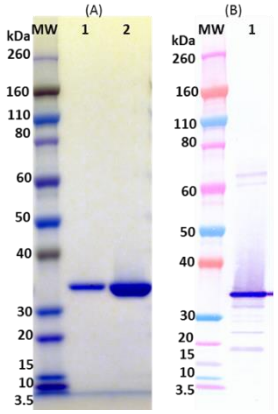
ELISA: Assay-dependent dilution.

WB: Assay-dependent dilution; internal QC demonstrates detection of 50 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.

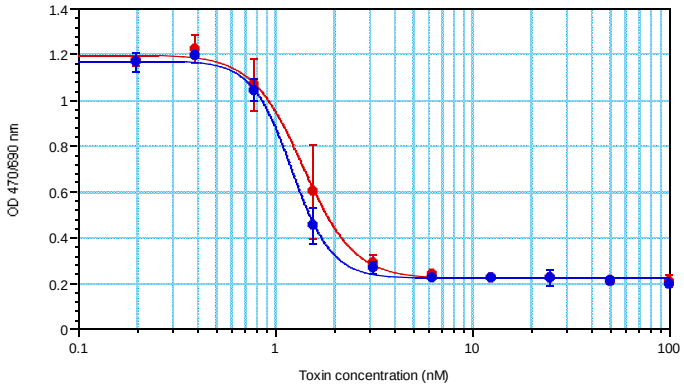
For additional *S. aureus* products, please visit:
http://www.ibtbioservices.com/reagents/staphylococcus/

SDS-PAGE and Western Blot Detection



(A) SDS-PAGE of LukS-PV: 1 µg (lane 1) and 5 µg (lane 2). (B) Western blot detection of LukS-PV at 50 ng, using IBT's anti-LukS-PV polyclonal antibody (Cat#04-0009) at 0.5 µg/mL and anti-rabbit IgG-HRP conjugate, followed by TMB membrane substrate.

Toxin Functionality*:*



Human promyelocytic leukemia cell line HL60 was differentiated into neutrophils by treatment with DMSO. Neutrophils were incubated with serial dilutions of LukS-PV and LukF-PV at equimolar concentration for 3 hours at 37°C with 5% CO2 and 95% humidity. Cellular viability was determined by adding XTT and incubating for additional 16 hours. Cells were centrifuged and the OD determined in the supernatants at 470/690 nm. EC_{50} values were found to be 1.37 nM for the LukS-PV tag-free lot 1805003 (red circles) and 1.20 nM for the LukS-PV tag-free lot 1503008 (blue circles).