

S. aureus recombinant LukD

Catalog #: 0530-003

Lot #: 1707001

Description: Purified, *Staphylococcus aureus* recombinant leukocidin-D (rLukD). The rLukD (tag free) is expressed in *E. coli* and purified by FPLC. The theoretical molecular weight of the protein is 36,889 Daltons.

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

Size: 100 µg of protein is supplied in PBS at a concentration of **2.224 mg/mL**. Protein demonstrates a molecular weight of approximately 37 kDa.

Endotoxin: 4.232 Endotoxin units/mg

Relevance: This protein may be used in functional toxicity assays in combination with rLukE, or as a control protein in ELISA assays or Western blotting when detecting toxins produced by different strains of *S. aureus*.

Recommended Dilutions:

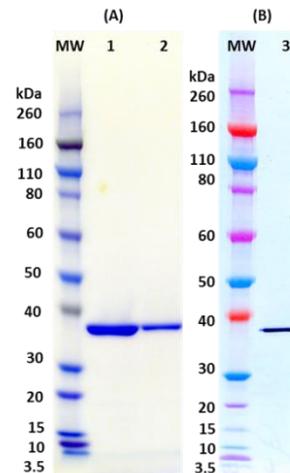
ELISA: Assay-dependent dilution.

WB: Assay-dependent dilution; internal QC demonstrates detection of 100 ng of rLukD protein using anti-PVL LukF polyclonal antibody (cat# 0312-002) in Western blotting.

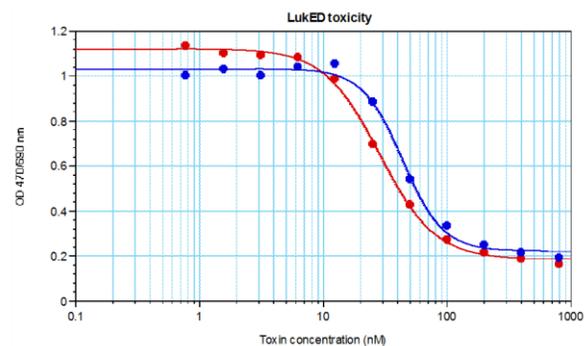
Cytotoxicity assay: Cytotoxicity can be detected in human neutrophils when used in combination with LukE.

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

SDS-PAGE and Western Blot Detection



(A) SDS-PAGE of rLukD: 5 µg (lane 1) and 1 µg (lane 2). (B) Western blot detection of rLukD at 100 ng (lane 3), using IBT's anti-LukF-PV polyclonal antibody (cat# 0312-002) at 0.5 µg/mL and an anti-rabbit IgG-HRP conjugate followed by substrate.



Toxin Functionality: Human promyelocytic leukemia cell line HL60 was differentiated into neutrophils by treatment with DMSO. Neutrophils were incubated with serial dilutions of rLukE (cat# 0530-004, lot 1503005) and rLukD at equimolar concentration for 3 hours at 37°C with 5% CO₂ and 95% humidity. Cellular viability was determined by adding XTT and incubation for additional 16 hours. Cells were centrifuged and the OD determined in the supernatants at 470/690 nm. Red circles represent the current lot 1707001 and blue circles represent the previous lot 1508003. EC₅₀ were found to be 28.8 nM for the current lot and 44.2 nM for the previous lot.

Intended for research use only. Not for human, therapeutic, or diagnostic applications.

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