



# Recombinant Staphylococcus Lysostaphin (DAG3599)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

Product Overview	Recombinant Lysostaphin
Species	Staphylococcus
Purity	96.5% as determined by RP-HPLC analysis
Conjugate	Unconjugated
Format	Lyophilized from a sterile filtered solution without additives
Preservative	None
Storage	2-8°C short term, -20°C long term

### **BACKGROUND**

#### Introduction

Lysostaphin is a Staphylococcus simulans metalloendopeptidase. It can function as an antimicrobial against Staphylococcus aureus. Lysostaphin is a 27 KDa glycylglycine endopeptidase, an antibacterial enzyme which is capable of cleaving the crosslinking pentaglycin bridges in the cell wall of Staphylococci. Lysotaphin was first isolated from a culture of Staphylococcus simulans by Schindler and Schuhardt in 1964. S. aureus cell walls contain high proportions of pentaglycin, making lysostaphin a highly effective agent against both actively growing and quiescent bacteria. Staphylococcal infections of both Staphylococcus aureus and Staphylococcus epidermidis continue to be a major issue in clinical settings, particularly those with implantable devices. Staphylococci cause a significant percentage of device infections, and like many other pathogens, rather than living as free planktonic cells within the host they have the ability to form a multilayered community of sessile bacteria cells known as a biofilm on implantable devices. Once a "Staphylococcal" biofilm has formed on an implanted medical device, it is difficult to disrupt due to its antibiotic resistance and protection

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against bacterial action.

#### Keywords

Lysostaphin; Staphylococcus simulans metalloendopeptidase; 27 KDa; glycylglycine endopeptidase; antibacterial enzyme; Glycyl-glycine endopeptidase; Iss