

QUANTITATION OF MARKERS FOR GRAM-NEGATIVE AND GRAM-POSITIVE ENDOTOXINS IN WORK ENVIRONMENT AND AS CONTAMINANTS IN PHARMACEUTICAL PRODUCTS USING GAS CHROMATOGRAPHY- TANDEM MASS SPECTROMETRY

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1 INTRODUCTION

Endotoxins are bacterial cell envelope constituents that, when present in pharmaceutical products, cause pyrogenic reactions sometimes resulting in lethality. The toxicity of endotoxins is directly related to their chemical composition. However, the viability of the organism is irrelevant since endotoxin derived from dead or live microbes is equally active. The classical endotoxin is lipopolysaccharide (LPS). However, peptidoglycan (PG) also displays endotoxin-like activities. LPS is found only in gram-negative bacterial outer membranes, while PG is present in the cell

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