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CENTER FOR DRUG EVALUATION AND RESEARCH

# Guidance for Industry

*The FDA published Good Guidance Practices in February 1997.  
This guidance was developed and issued prior to that date.*

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Office of Training and Communications  
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Drug Information Branch, HFD-210  
5600 Fishers Lane  
Rockville, MD 20857

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U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES, FOOD AND DRUG ADMINISTRATION

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CHRIST 2012



**GUIDELINE ON  
VALIDATION OF THE LIMULUS AMEBOCYTE LYSATE TEST  
AS AN END-PRODUCT ENDOTOXIN TEST FOR HUMAN  
AND ANIMAL PARENTERAL DRUGS, BIOLOGICAL PRODUCTS, AND  
MEDICAL DEVICES**

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PUBLIC HEALTH SERVICE  
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MEDICAL DEVICES

December 1987

Prepared by: Center for Drug Evaluation and Research  
Center for Biologic Evaluation and Research  
Center for Devices and Radiological Health  
Center for Veterinary Medicine

Maintained by: Division of Manufacturing and Product Quality (HFN-320)  
Office of Compliance  
Center for Drug Evaluation and Research  
Food and Drug Administration  
5600 Fishers Lane  
Rockville, MD 20857

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## INTRODUCTION

This guideline sets forth acceptable conditions for use of the Limulus Amebocyte Lysate test. It also describes procedures for using this methodology as an end-product endotoxin test for human injectable drugs (including biological products), animal injectable drugs, and medical devices. The procedures may be used in lieu of the rabbit pyrogen test.

For the purpose of this guideline, the terms "lysate" or "lysate reagent" refer only to Limulus Amebocyte Lysate licensed by the Center for Biologic Evaluation and Research. The term "official test" means that a test is referenced in a United States Pharmacopeia drug monograph, a New Drug Application, New Animal Drug Application or a Biological License.

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