

SUMMARY

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for public release after registration)

STUDY TITLE

AAD1 Amino-Acid Homology Search for Similarity to Allergens

DATA REQUIREMENTS

None

AUTHOR(S)

R. A. Herman

STUDY COMPLETED ON

26-Feb-2007

PERFORMING LABORATORY

Regulatory Laboratories—Indianapolis Lab  
Dow AgroSciences LLC  
9330 Zionsville Road  
Indianapolis, Indiana 46268-1054

LABORATORY STUDY ID

071029

## AAD1 Amino-Acid Homology Search for Similarity to Allergens

### SUMMARY

The AAD1 (aryloxyalkanoate dioxygenase 1) protein was evaluated for amino-acid sequence similarity to known allergens based on 8-contiguous amino-acid identity or 35% or greater identity over any 80 amino-acid segment. No matches were found in the FARRP (Food Allergy Research and Resource Program) version 7.00 allergen database.

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STATEMENT OF NO DATA CONFIDENTIALITY CLAIMS

Compound: AAD1

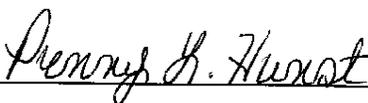
Title: AAD1 Amino-Acid Homology Search for Similarity to Allergens

No claim of confidentiality is made for any information contained in this study on the basis of its falling within the scope of FIFRA Section 10 (d)(1)(A)(B), or (C).\*

Company: Dow AgroSciences LLC

Company Agent: P. L. Hunst

Title: Global Regulatory Trait Leader

Signature: 

Date: 2/23/2007

\*In the United States, the above statement supersedes all other statements of confidentiality that may occur elsewhere in this report.

THIS DATA MAY BE CONSIDERED CONFIDENTIAL IN COUNTRIES OUTSIDE THE UNITED STATES.

STATEMENT OF COMPLIANCE WITH GOOD LABORATORY PRACTICE STANDARDS

Title: AAD1 Amino-Acid Homology Search for Similarity to Allergens

Study Initiation Date: 02/19/2007

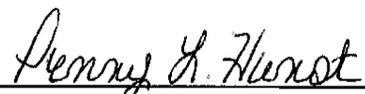
Experimental Start Date: 02/19/2007 Experiment Termination Date: 02/19/2007

This report represents data generated after the effective date of the EPA FIFRA Good Laboratory Practice Standards.

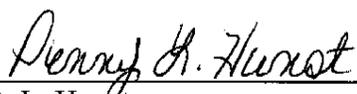
United States Environmental Protection Agency  
Title 40 Code of Federal Regulations Part 160  
FEDERAL REGISTER, August 17, 1989

Organisation for Economic Co-Operation and Development  
ENV/MC/CHEM(98)17, Paris January 26, 1998

This study does not meet requirements of 40 CFR Part 160.

  
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R. A. Herman  
Study Director/Author  
Dow AgroSciences LLC

26 Feb 2007  
\_\_\_\_\_  
Study Completion Date

## QUALITY ASSURANCE STATEMENT

Compound: AAD1

Title: AAD1 Amino-Acid Homology Search for Similarity to Allergens

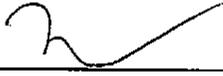
Study Initiation Date: 02/19/2007

Study Completion Date: 02/26/2007

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**NON-GLP STUDY**

SIGNATURE PAGE



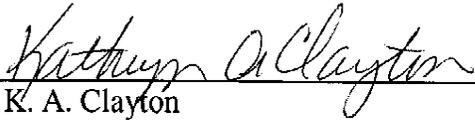
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R. A. Herman  
Author  
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22 Feb 2007

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Date



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K. A. Clayton  
Global Biotechnology Regulatory Sciences  
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22 Feb 2007

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Date

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## AAD1 Amino-Acid Homology Search for Similarity to Allergens

### ABSTRACT

The AAD1 (aryloxyalkanoate dioxygenase 1) protein was evaluated for amino-acid sequence similarity to known allergens based on 8-contiguous amino-acid identity or 35% or greater identity over any 80 amino-acid segment. No matches were found in the FARRP (Food Allergy Research and Resource Program) version 7.00 allergen database.

## INTRODUCTION

The AAD1 (aryloxyalkanoate dioxygenase 1) protein was evaluated for amino-acid sequence similarity to known allergens based on 8-contiguous amino-acid identity or 35% or greater identity over any 80 amino-acid segment.

## METHODS AND MATERIALS

A script named PAASH v1.1 (Dow AgroSciences notebook E1855 pp. 28-81) was used to search the FARRP (Food Allergy Research and Resource Program, University of Nebraska) version 7.00 allergen database for 8-contiguous amino-acid identity or 35% or greater identity over 80 amino acids using the AAD1 amino-acid sequence (Figure 1) as a template. This program uses FindPatterns and FastA programs from GCG Wisconsin Package v10.3 (Genetics Computer Group, Madison, WI).

## RESULTS AND DISCUSSION

No 8-contiguous amino-acid identity or 35% or greater identity over 80 amino acids was found when the AAD1 sequence was compared to the FAARP version 7.00 allergen database.

**FIGURE 1. AMINO ACID SEQUENCE OF AAD1**

MAHAALSPLSQRFERIAVQPLTGVLGAEITGVDLREPLDDSTWNEILDAF  
HTYQVIYFPGQAITNEQHIAFSRRFGPVDVPLLKSIEGYPEVQMIRREA  
NESGRVIGDDWHTDSTFLDAPPAAVVMRAIDVPEHGGDTGFLSMYTAWET  
LSPTMQATIEGLNVVHSATRVFGSLYQAQNRRFSNTSVKVMVDAGDRET  
VHPLVVTHPGSGRKGLYVNQVYCQRIEGMTDAESKPLLQFLYEHATRFDF  
TCRVRWKKDQVLVWDNLCTMHRVDPDYAGKFRYLTRTTVGGVRPAR