Experiment Number: 99007-01
Test Type: 14-DAY
Route: DOSED FEED
Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)
Test Compound: Goldenseal root powder
CAS Number: GOLDENSEALRT

Date Report Requested: 10/21/2014
Time Report Requested: 18:15:59
First Dose M/F: NA / NA
Lab: MBA

C Number: C99007
Lock Date: 10/11/2001
Cage Range: All
Date Range: All
Reasons For Removal: All
Removal Date Range: All
Treatment Groups: All
Study Gender: Both
PWG Approval Date: NONE
F 344/N Rat Male

VEHICLE CONTROL

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*TOTALS*

### Alimentary System

- Liver: + + + + + 5

### Cardiovascular System

- NONE

### Endocrine System

- NONE

### General Body System

- NONE

### Genital System

- NONE

### Hematopoietic System

- NONE

### Integumentary System

- NONE

### Musculoskeletal System

- NONE

### Nervous System

- NONE

---

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
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M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically
Experiment Number: 99007-01
Test Type: 14-DAY
Route: DOSED FEED
Species/Strain: Rat/F 344/N

**P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)**

- **Test Compound:** Goldenseal root powder
- **CAS Number:** GOLDENSEALRT

**F 344/N Rat Male**
**VEHICLE CONTROL**

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*TOTALS*

**Respiratory System**
- NONE

**Special Senses System**
- NONE

**Urinary System**
- NONE

**SYSTEMIC LESIONS**

- **Multiple Organ**
  - + + + + +
  - 5

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* ..Total animals with tissue examined microscopically; Total animals with tumor
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### F 344/N Rat Male

1560 PPM

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P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)
Test Compound: Goldenseal root powder
CAS Number: GOLDENSEALRT

Date Report Requested: 10/21/2014
Time Report Requested: 18:15:59
First Dose M/F: NA / NA
Lab: MBA

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F 344/N Rat Male
3121 PPM

| ANIMAL ID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 2 | 2 | 2 | 1 | 2 | 3 | 4 | 5 |

*TOTALS

Alimentary System

Liver 

Cardiovascular System

NONE

Endocrine System

NONE

General Body System

NONE

Genital System

NONE

Hematopoietic System

NONE

Integumentary System

NONE

Musculoskeletal System

NONE

Nervous System

NONE

* ..Total animals with tissue examined microscopically; Total animals with tumor
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Page 6
**P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)**

**Test Compound:** Goldenseal root powder  
**CAS Number:** GOLDENSEALRT

---

**Experiment Number:** 99007-01  
**Test Type:** 14-DAY  
**Route:** DOSED FEED  
**Species/Strain:** Rat/F 344/N  
**Date Report Requested:** 10/21/2014  
**Time Report Requested:** 18:15:59  
**First Dose M/F:** NA / NA  
**Lab:** MBA

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### Respiratory System

- **NONE**

### Special Senses System

- **NONE**

### Urinary System

- **NONE**

### SYSTEMIC LESIONS

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### P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

**Test Compound:** Goldenseal root powder  
**CAS Number:** GOLDENSEALRT

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**Day on Test:**  
**F 344/N Rat Male**  
**6250 PPM**

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<th>HEMATOPOIETIC SYSTEM</th>
<th>INTEGUMENTARY SYSTEM</th>
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---

Page 8
### DAY ON TEST

**F 344/N Rat Male**

6250 PPM

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* ..Total animals with tissue examined microscopically; Total animals with tumor
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## P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

**Test Compound:** Goldenseal root powder  
**CAS Number:** GOLDENSEALRT

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**F 344/N Rat Male**  
**12500 PPM**

**ANIMAL ID**  
| 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 4 | 4 | 4 | 4 | 5 |

*TOTALS*

### Alimentary System

- Liver: + + + + + 5

### Cardiovascular System

- NONE

### Endocrine System

- NONE

### General Body System

- NONE

### Genital System

- NONE

### Hematopoietic System

- NONE

### Integumentary System

- NONE

### Musculoskeletal System

- NONE

### Nervous System

- NONE

---

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P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

Test Compound: Goldenseal root powder
CAS Number: GOLDENSEALRT

Experiment Number: 99007-01
Test Type: 14-DAY
Route: DOSED FEED
Species/Strain: Rat/F 344/N

Date Report Requested: 10/21/2014
Time Report Requested: 18:15:59
First Dose M/F: NA / NA
Lab: MBA

F 344/N Rat Male
12500  PPM

ANIMAL ID
0 0 0 0 0
0 0 0 0 0
1 1 1 1 1
5 5 5 5 5

Respiratory System
NONE

Special Senses System
NONE

Urinary System
NONE

SYSTEMIC LESIONS

Multiple Organ
+ + + + + 5

* ..Total animals with tissue examined microscopically; Total animals with tumor
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**F 344/N Rat Male**

25000   PPM

*TOTALS*

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**Alimentary System**

| Liver | + | + | + | + | 5 |

**Cardiovascular System**

NONE

**Endocrine System**

NONE

**General Body System**

NONE

**Genital System**

NONE

**Hematopoietic System**

NONE

**Integumentary System**

NONE

**Musculoskeletal System**

NONE

**Nervous System**

NONE

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Experiment Number: 99007-01  
Test Type: 14-DAY  
Route: DOSED FEED  
Species/Strain: Rat/F 344/N

**P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)**  
Test Compound: Goldenseal root powder  
CAS Number: GOLDENSEALRT

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BLANK ..Not examined microscopically

**F 344/N Rat Male**  
25000 PPM

**Respiratory System**  
NONE

**Special Senses System**  
NONE

**Urinary System**  
NONE

**SYSTEMIC LESIONS**

Multiple Organ  
+ + + + +  
5

Page 13
**Experiment Number:** 99007-01
**Test Type:** 14-DAY
**Route:** DOSED FEED
**Species/Strain:** Rat/F 344/N

---

**P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)**

**Test Compound:** Goldenseal root powder
**CAS Number:** GOLDENSEALRT

---

**F 344/N Rat Male**

**50000 PPM**

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**Alimentary System**

- **Liver:** + + + + + 5

---

**Cardiovascular System**

None

---

**Endocrine System**

None

---

**General Body System**

None

---

**Genital System**

None

---

**Hematopoietic System**

None

---

**Integumentary System**

None

---

**Musculoskeletal System**

None

---

**Nervous System**

None

---

* ..Total animals with tissue examined microscopically; Total animals with tumor
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**Experiment Number:** 99007-01  
**Test Type:** 14-DAY  
**Route:** DOSED FEED  
**Species/Strain:** Rat/F 344/N

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**P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)**

**Test Compound:** Goldenseal root powder  
**CAS Number:** GOLDENSEALRT  
**Date Report Requested:** 10/21/2014  
**Time Report Requested:** 18:15:59  
**First Dose M/F:** NA / NA  
**Lab:** MBA

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**F 344/N Rat Male**  
**50000 PPM**

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*TOTALS*

---

**Respiratory System**

NONE

**Special Senses System**

NONE

**Urinary System**

NONE

**SYSTEMIC LESIONS**

Multiple Organ  

| + | + | + | + | + | 5 |

***END OF MALE DATA***

---

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- **Test Type:** 14-DAY
- **Route:** DOSED FEED
- **Species/Strain:** Rat/F 344/N
- **Test Compound:** Goldenseal root powder
- **CAS Number:** GOLDENSEALRT
- **Date Report Requested:** 10/21/2014
- **Time Report Requested:** 18:15:59
- **First Dose M/F:** NA / NA
- **Lab:** MBA

####-day on test

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### *TOTALS*

#### Alimentary System
- Liver: + + + + + 5

#### Cardiovascular System
- NONE

#### Endocrine System
- NONE

#### General Body System
- NONE

#### Genital System
- NONE

#### Hematopoietic System
- NONE

#### Integumentary System
- NONE

#### Musculoskeletal System
- NONE

#### Nervous System
- NONE

---

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue
M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically
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**F 344/N Rat Female**

**VEHICLE CONTROL**

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**Respiratory System**

- NONE

**Special Senses System**

- NONE

**Urinary System**

- NONE

**SYSTEMIC LESIONS**

- Multiple Organ + + + + + 5

---

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue
M ..Missing tissue
A ..Autolysis precludes evaluation
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Page 17
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**F 344/N Rat Female**

1560 PPM

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*TOTALS*

**Alimentary System**

- Liver: + 1

**Cardiovascular System**

- NONE

**Endocrine System**

- NONE

**General Body System**

- NONE

**Genital System**

- NONE

**Hematopoietic System**

- NONE

**Integumentary System**

- NONE

**Musculoskeletal System**

- NONE

**Nervous System**

- NONE

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue
M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically
Experiment Number: 99007-01
Test Type: 14-DAY
Route: DOSED FEED
Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)
Test Compound: Goldenseal root powder
CAS Number: GOLDENSEALRT

Date Report Requested: 10/21/2014
Time Report Requested: 18:16:00
First Dose M/F: NA / NA
Lab: MBA

F 344/N Rat Female
1560 PPM

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*TOTALS

Respiratory System
NONE

Special Senses System
NONE

Urinary System
NONE

SYSTEMIC LESIONS

Multiple Organ + 1

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
M ..Missing tissue
A ..Autolysis precludes evaluation
X ..Lesion present
I ..Insufficient tissue
BLANK ..Not examined microscopically

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**P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)**

**Test Compound:** Goldenseal root powder  
**CAS Number:** GOLDENSEALRT

---

**DAYS ON TEST**

**Rat Female**

**3121 PPM**

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* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue
M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically
Experiment Number: 99007-01  
Test Type: 14-DAY  
Route: DOSED FEED  
Species/Strain: Rat/F 344/N  

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)  
Test Compound: Goldenseal root powder  
CAS Number: GOLDENSEALRT  

Date Report Requested: 10/21/2014  
Time Report Requested: 18:16:00  
First Dose M/F: NA / NA  
Lab: MBA

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**SYSTEMIC LESIONS**

| Multiple Organ | 0 |

* ..Total animals with tissue examined microscopically; Total animals with tumor  
M ..Missing tissue  
+ ..Tissue examined microscopically  
A ..Autolysis precludes evaluation  
X ..Lesion present  
I ..Insufficient tissue  
BLANK ..Not examined microscopically
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* ..Total animals with tissue examined microscopically; Total animals with tumor + ..Tissue examined microscopically X ..Lesion present I ..Insufficient tissue M ..Missing tissue A ..Autolysis precludes evaluation BLANK ..Not examined microscopically
F 344/N Rat Female
6250 PPM

ANIMAL ID

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SYSTEMIC LESIONS

| Multiple Organ | 0 |

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue
M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically
Experiment Number: 99007-01
Test Type: 14-DAY
Route: DOSED FEED
Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)
Test Compound: Goldenseal root powder
CAS Number: GOLDENSEALRT

Date Report Requested: 10/21/2014
Time Report Requested: 18:16:00
First Dose M/F: NA / NA
Lab: MBA

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F 344/N Rat Female
12500 PPM

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* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
X ..Lesion present
I ..Insufficient tissue
M ..Missing tissue
A ..Autolysis precludes evaluation
BLANK ..Not examined microscopically
**Experiment Number:** 99007-01  
**Test Type:** 14-DAY  
**Route:** DOSED FEED  
**Species/Strain:** Rat/F 344/N  
**Test Compound:** Goldenseal root powder  
**CAS Number:** GOLDENSEALRT  
**Date Report Requested:** 10/21/2014  
**Time Report Requested:** 18:16:00  
**First Dose M/F:** NA / NA  
**Lab:** MBA

### Respiratory System

- NONE

### Special Senses System

- NONE

### Urinary System

- NONE

### SYSTEMIC LESIONS

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**ANIMAL ID totals**

- 0 Tissue examined microscopically
- 1 Tissue examined microscopically
- 5 Lesion present

* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
M ..Missing tissue  
A ..Autolysis precludes evaluation  
X ..Lesion present  
I ..Insufficient tissue  
BLANK ..Not examined microscopically

---

**F 344/N Rat Female**  
**12500 PPM**

---

Page 25
**Experiment Number:** 99007-01  
**Test Type:** 14-DAY  
**Route:** DOSED FEED  
**Species/Strain:** Rat/F 344/N

**Test Compound:** Goldenseal root powder  
**CAS Number:** GOLDENSEALRT  
**Date Report Requested:** 10/21/2014  
**Time Report Requested:** 18:16:00  
**First Dose M/F:** NA / NA  
**Lab:** MBA

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**DAY ON TEST**

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**ANIMAL ID**

| ANIMAL ID | 0 | 0 | 1 | 5 | 0 | 0 | 0 | 5 | 6 | 0 | 7 | 8 | 9 | 0 |

* **TOTALS**

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**P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)**

**Alimentary System**

- Liver: + + + + 5

**Cardiovascular System**

- NONE

**Endocrine System**

- NONE

**General Body System**

- NONE

**Genital System**

- NONE

**Hematopoietic System**

- NONE

**Integumentary System**

- NONE

**Musculoskeletal System**

- NONE

**Nervous System**

- NONE

---

* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue  
M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically

Page 26
**Experiment Number:** 99007-01  
**Test Type:** 14-DAY  
**Route:** DOSED FEED  
**Species/Strain:** Rat/F 344/N  

**P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)**  
**Test Compound:** Goldenseal root powder  
**CAS Number:** GOLDENSEALRT  

**Date Report Requested:** 10/21/2014  
**Time Report Requested:** 18:16:00  
**First Dose M/F:** NA / NA  
**Lab:** MBA

### Systemic Lesions

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**Respiratory System**

NONE

**Special Senses System**

NONE

**Urinary System**

NONE

**SYSTEMIC LESIONS**

| Multiple Organ | + | + | + | + | + | **5** |

* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
M ..Missing tissue  
A ..Autolysis precludes evaluation  
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BLANK ..Not examined microscopically
**Experiment Number:** 99007-01  
**Test Type:** 14-DAY  
**Route:** DOSED FEED  
**Species/Strain:** Rat/F 344/N

**Test Compound:** Goldenseal root powder  
**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014  
**Time Report Requested:** 18:16:00  
**First Dose M/F:** NA / NA  
**Lab:** MBA

### P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)

**F 344/N Rat Female**  
**50000 PPM**

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### Alimentary System

- **Liver:** + + + + +  
  TOTAL: 5

### Cardiovascular System

- NONE

### Endocrine System

- NONE

### General Body System

- NONE

### Genital System

- NONE

### Hematopoietic System

- NONE

### Integumentary System

- NONE

### Musculoskeletal System

- NONE

### Nervous System

- NONE

* ..Total animals with tissue examined microscopically; Total animals with tumor  
+ ..Tissue examined microscopically  
X ..Lesion present  
I ..Insufficient tissue  
M ..Missing tissue  
A ..Autolysis precludes evaluation  
BLANK ..Not examined microscopically
Experiment Number: 99007-01
Test Type: 14-DAY
Route: DOSED FEED
Species/Strain: Rat/F 344/N

P07: NEOPLASMS BY INDIVIDUAL ANIMAL (SYSTEMIC LESIONS ABRIDGED)
Test Compound: Goldenseal root powder
CAS Number: GOLDENSEALRT

Date Report Requested: 10/21/2014
Time Report Requested: 18:16:00
First Dose M/F: NA / NA
Lab: MBA

Respiratory System
NONE

Special Senses System
NONE

Urinary System
NONE

SYSTEMIC LESIONS
Multiple Organ
+ + + + + 5

* ..Total animals with tissue examined microscopically; Total animals with tumor
+ ..Tissue examined microscopically
A ..Autolysis precludes evaluation
X ..Lesion present
I ..Insufficient tissue
M ..Missing tissue
BLANK ..Not examined microscopically

** END OF REPORT **