

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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Goldenseal root powder  
**CAS Number:** GOLDENSEALRT

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

<b>C Number:</b>	C99007
<b>Lock Date:</b>	10/11/2001
<b>Cage Range:</b>	All
<b>Date Range:</b>	All
<b>Reasons For Removal:</b>	All
<b>Removal Date Range:</b>	All
<b>Treatment Groups:</b>	All
<b>Study Gender:</b>	Both
<b>PWG Approval Date</b>	NONE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

<b>ANIMAL ID:</b> 1	<b>TRT#:</b> 1 <b>DOSE:</b> VEHICLE CONTROL	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 15 <b>HISTO:</b> MB450M-1
<b>OBSERVATIONS</b> Liver	Centrilobular, Hepatocyte	Vacuolization Cytoplasmic	Mild
<b>PRIMARY CAUSE OF DEATH</b>	-		

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

<b>ANIMAL ID:</b> 2	<b>TRT#:</b> 1 <b>DOSE:</b> VEHICLE CONTROL	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 15 <b>HISTO:</b> MB450M-2
<b>OBSERVATIONS</b>			
Liver	Centrilobular, Hepatocyte	Vacuolization Cytoplasmic	Mild
<b>PRIMARY CAUSE OF DEATH</b>	-		

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

<b>ANIMAL ID:</b> 3	<b>TRT#:</b> 1 <b>DOSE:</b> VEHICLE CONTROL	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 15 <b>HISTO:</b> MB450M-3
<b>OBSERVATIONS</b>			
Liver	Centrilobular, Hepatocyte	Vacuolization Cytoplasmic	Mild
<b>PRIMARY CAUSE OF DEATH</b>	-		

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

<b>ANIMAL ID:</b> 4	<b>TRT#:</b> 1	<b>SEX:</b> Male	<b>DAY ON TEST:</b> 15
	<b>DOSE:</b> VEHICLE CONTROL	<b>DISP:</b> Terminal Sacrifice	<b>HISTO:</b> MB450M-4
<b>OBSERVATIONS</b>			
Liver	Centrilobular, Hepatocyte	Vacuolization Cytoplasmic	Mild
<b>PRIMARY CAUSE OF DEATH</b>			
-			

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

<b>ANIMAL ID:</b> 5	<b>TRT#:</b> 1 <b>DOSE:</b> VEHICLE CONTROL	<b>SEX:</b> Male <b>DISP:</b> Terminal Sacrifice	<b>DAY ON TEST:</b> 15 <b>HISTO:</b> MB450M-5
<b>OBSERVATIONS</b> Liver	Centrilobular, Hepatocyte	Vacuolization Cytoplasmic	Mild
<b>PRIMARY CAUSE OF DEATH</b>	-		

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 24

**TRT#:** 3

**SEX:** Male

**DAY ON TEST:** 15

**DOSE:** 3121 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-24

---

**OBSERVATIONS**

Liver

Hepatodiaphragmatic Nodule

Mild

[ Hepatodiaphragmatic Nodule TGLS = 1-1 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 41

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 15

**DOSE:** 12500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-41

---

**OBSERVATIONS**

Liver

Centrilobular, Hepatocyte

Vacuolization Cytoplasmic

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 42

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 15

**DOSE:** 12500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-42

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Liver

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 43

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 15

**DOSE:** 12500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-43

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Liver

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 44

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 15

**DOSE:** 12500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-44

---

**OBSERVATIONS**

Liver

Centrilobular, Hepatocyte

Vacuolization Cytoplasmic

Mild

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 45

**TRT#:** 5

**SEX:** Male

**DAY ON TEST:** 15

**DOSE:** 12500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-45

---

**OBSERVATIONS**

Liver

Centrilobular, Hepatocyte

Vacuolization Cytoplasmic

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 51

**TRT#:** 6

**SEX:** Male

**DAY ON TEST:** 15

**DOSE:** 25000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-51

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Liver

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 52

**TRT#:** 6

**SEX:** Male

**DAY ON TEST:** 15

**DOSE:** 25000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-52

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Liver

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 53

**TRT#:** 6

**SEX:** Male

**DAY ON TEST:** 15

**DOSE:** 25000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-53

---

**OBSERVATIONS**

Liver

Centrilobular, Hepatocyte

Hypertrophy

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 54

**TRT#:** 6

**SEX:** Male

**DAY ON TEST:** 15

**DOSE:** 25000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-54

---

**OBSERVATIONS**

Liver

Centrilobular, Hepatocyte

Hypertrophy

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 55

**TRT#:** 6

**SEX:** Male

**DAY ON TEST:** 15

**DOSE:** 25000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-55

---

**OBSERVATIONS**

Liver

Centrilobular, Hepatocyte

Hypertrophy

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 61

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 15

**DOSE:** 50000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-61

---

**OBSERVATIONS**

Liver

Centrilobular, Hepatocyte

Hypertrophy

Mild

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 62

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 15

**DOSE:** 50000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-62

---

**OBSERVATIONS**

Liver

Centrilobular, Hepatocyte

Hypertrophy

Moderate

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 63

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 15

**DOSE:** 50000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-63

---

**OBSERVATIONS**

Liver

Centrilobular, Hepatocyte

Hypertrophy

Moderate

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 64

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 15

**DOSE:** 50000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-64

---

**OBSERVATIONS**

Liver

Centrilobular, Hepatocyte

Hypertrophy

Moderate

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 65

**TRT#:** 7

**SEX:** Male

**DAY ON TEST:** 15

**DOSE:** 50000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-65

---

**OBSERVATIONS**

Liver

Centrilobular, Hepatocyte

Hypertrophy

Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 6

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 15

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-6

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Liver

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 7

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 15

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-7

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Liver

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 8

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 15

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-8

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Liver

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 9

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 15

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-9

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Liver

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 10

**TRT#:** 8

**SEX:** Female

**DAY ON TEST:** 15

**DOSE:** VEHICLE CONTROL

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-10

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Liver

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 20

**TRT#:** 9

**SEX:** Female

**DAY ON TEST:** 15

**DOSE:** 1560 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-20

---

**OBSERVATIONS**

Liver

Hepatodiaphragmatic Nodule

Minimal

[ Hepatodiaphragmatic Nodule TGLS = 1-1 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 46

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 15

**DOSE:** 12500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-46

---

**OBSERVATIONS**

Liver

Hepatodiaphragmatic Nodule

Mild

[ Hepatodiaphragmatic Nodule TGLS = 1-1.1 ]

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 47

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 15

**DOSE:** 12500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-47

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Liver

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 48

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 15

**DOSE:** 12500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-48

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Liver

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 49

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 15

**DOSE:** 12500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-49

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Liver

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 50

**TRT#:** 12

**SEX:** Female

**DAY ON TEST:** 15

**DOSE:** 12500 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-50

---

**ORGAN AND ACCOUNTABLE SITE STATUS**

---

**NORMAL**

Liver

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 56

**TRT#:** 13

**SEX:** Female

**DAY ON TEST:** 15

**DOSE:** 25000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-56

---

**OBSERVATIONS**

Liver

Centrilobular, Hepatocyte

Hypertrophy

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 57

**TRT#:** 13

**SEX:** Female

**DAY ON TEST:** 15

**DOSE:** 25000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-57

---

**OBSERVATIONS**

Liver

Centrilobular, Hepatocyte

Hypertrophy

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 58

**TRT#:** 13

**SEX:** Female

**DAY ON TEST:** 15

**DOSE:** 25000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-58

---

**OBSERVATIONS**

Liver

Centrilobular, Hepatocyte

Hypertrophy

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 59

**TRT#:** 13

**SEX:** Female

**DAY ON TEST:** 15

**DOSE:** 25000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-59

---

**OBSERVATIONS**

Liver

Centrilobular, Hepatocyte

Hypertrophy

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 60

**TRT#:** 13

**SEX:** Female

**DAY ON TEST:** 15

**DOSE:** 25000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-60

---

**OBSERVATIONS**

Liver

Centrilobular, Hepatocyte

Hypertrophy

Minimal

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 66

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 15

**DOSE:** 50000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-66

---

**OBSERVATIONS**

Liver

Centrilobular, Hepatocyte

Hypertrophy

Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 67

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 15

**DOSE:** 50000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-67

---

**OBSERVATIONS**

Liver

Centrilobular, Hepatocyte

Hypertrophy

Mild

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE



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

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**  
**Test Compound:** Goldenseal root powder  
**CAS Number:** GOLDENSEALRT

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

---

**ANIMAL ID:** 68

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 15

**DOSE:** 50000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-68

---

**OBSERVATIONS**

Liver

Centrilobular, Hepatocyte

Hypertrophy

Moderate

---

**PRIMARY CAUSE OF DEATH**

-

---

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 69

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 15

**DOSE:** 50000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-69

---

**OBSERVATIONS**

Liver

Centrilobular, Hepatocyte

Hypertrophy

Mild

---

**PRIMARY CAUSE OF DEATH**

-

\* PROTOCOL REQUIRED TISSUE

**Experiment Number:** 99007-01

**Test Type:** 14-DAY

**Route:** DOSED FEED

**Species/Strain:** Rat/F 344/N

**P14: INDIVIDUAL ANIMAL PATHOLOGY DATA**

**Test Compound:** Goldenseal root powder

**CAS Number:** GOLDENSEALRT

**Date Report Requested:** 10/21/2014

**Time Report Requested:** 18:15:21

**First Dose M/F:** NA / NA

**Lab:** MBA

---

**ANIMAL ID:** 70

**TRT#:** 14

**SEX:** Female

**DAY ON TEST:** 15

**DOSE:** 50000 PPM

**DISP:** Terminal Sacrifice

**HISTO:** MB450M-70

---

**OBSERVATIONS**

Liver

Centrilobular, Hepatocyte

Hypertrophy

Mild

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**PRIMARY CAUSE OF DEATH**

-

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**\*\* END OF REPORT \*\***