

Study Number: C20323-03
Test Type: TOX
Route: Oral Gavage
Species/Strain: Rat/Wistar Han

PA48: Summary of Tissue Concentration

Test Compound: Resveratrol
CAS Number: 501-36-0

Date Report Requested: 11/23/2020
Time Report Requested: 07:17:42
Lab: NTP

Study Number:

C20323-03

Study Gender:

Both

PWG Approval Date:

See web page for date of PWG Approval

Version:

v1.1.1

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		F0 Female											
Phase	Dose (mg/kg)	0	78			312.5			1250				
GD 18	Trans-resveratrol Concentration in Plasma 30 Minutes Post Dosing (ng/ml) ^a	BD	150	±	61.1 (3)	508	±	129 (3)	1640	±	288 (3)		
GD 18	Trans-resveratrol 3-O-B-D glucuronide Concentration in Plasma 30 Minutes Post Dosing (ng/ml) ^a	BD	14900	±	2600 (3)	31100	±	2190 (3)	56000	±	5400 (3)		
GD 18	Trans-resveratrol 3-sulfate Concentration in Plasma 30 Minutes Post Dosing (ng/ml) ^a	BD	3660	±	736 (3)	9530	±	2510 (3)	44400	±	1180 (3)		
GD 18	Trans-resveratrol Concentration in Plasma 60 Minutes Post Dosing (ng/ml) ^a	BD	268	±	52.0 (3)	687	±	276 (3)	984	±	691 (3)		
GD 18	Trans-resveratrol 3-O-B-D glucuronide Concentration in Plasma 60 Minutes Post Dosing (ng/ml) ^a	BD	21900	±	814 (3)	21700	±	2630 (3)	59100	±	23700 (3)		
GD 18	Trans-resveratrol 3-sulfate Concentration in Plasma 60 Minutes Post Dosing (ng/ml) ^a	BD	6410	±	893 (3)	10300	±	2690 (3)	36700	±	26800 (3)		
GD 18	Trans-resveratrol Concentration in Plasma 90 Minutes Post Dosing (ng/ml) ^a	BD	274	±	87.4 (3)	1150	±	449 (3)	3480	±	832 (3)		
GD 18	Trans-resveratrol 3-O-B-D glucuronide Concentration in Plasma 90 Minutes Post Dosing (ng/ml) ^a	BD	30000	±	2580 (3)	38100	±	6470 (3)	151000	±	7220 (3)		
GD 18	Trans-resveratrol 3-sulfate Concentration in Plasma 90 Minutes Post Dosing (ng/ml) ^a	2.46 ± 1.72 (3) **	10700	±	1660 (3) *	32300	±	13300 (3) *	87300	±	3690 (3) **		
GD 18	Pooled Whole Fetal Trans-resveratrol Concentration 30 Minutes Post Dosing (ng/g) ^a	BD	8.52	±	3.36 (3)	22.0	±	4.34 (3)	107	±	27.6 (3)		
GD 18	Pooled Whole Fetal Trans-resveratrol 3-O-B-D glucuronide Concentration 30 Minutes Post Dosing (ng/g) ^a	BD	137	±	24.6 (3)	476	±	88.0 (3)	1730	±	235 (3)		
GD 18	Pooled Whole Fetal Trans-resveratrol 3-sulfate Concentration 30 Minutes Post Dosing (ng/g) ^a	BD	93.3	±	11.2 (3)	336	±	87.2 (3)	902	±	89.7 (3)		
GD 18	Pooled Whole Fetal Trans-resveratrol Concentration 60 Minutes Post Dosing (ng/g) ^a	BD	11.2	±	1.51 (3)	26.8	±	8.74 (3)	91.5	±	40.6 (3)		
GD 18	Pooled Whole Fetal Trans-resveratrol 3-O-B-D glucuronide Concentration 60 Minutes Post Dosing (ng/g) ^a	BD	156	±	16.3 (3)	495	±	176 (3)	1890	±	541 (3)		
GD 18	Pooled Whole Fetal Trans-resveratrol 3-sulfate Concentration 60 Minutes Post Dosing (ng/g) ^a	BD	150	±	15.2 (3)	402	±	156 (3)	1200	±	378 (3)		
GD 18	Pooled Whole Fetal Trans-resveratrol Concentration 90 Minutes Post Dosing (ng/g) ^a	BD	13.4	±	1.93 (3)	66.3	±	28.8 (3)	369	±	64.7 (3)		

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		F0 Female												
Phase	Dose (mg/kg)	0	78			312.5			1250					
GD 18	Pooled Whole Fetal Trans-resveratrol 3-O-B-D glucuronide Concentration 90 Minutes Post Dosing (ng/g) ^a	BD	250	±	25.6	(3)	729	±	210	(3)	4150	±	250	(3)
GD 18	Pooled Whole Fetal Trans-resveratrol 3-sulfate Concentration 90 Minutes Post Dosing (ng/g) ^a	BD	275	±	11.6	(3)	823	±	279	(3)	2340	±	114	(3)

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		F1 Male							
Phase	Dose (mg/kg)	0	78		312.5		1250		
PND 4	Whole Pup Trans-resveratrol Concentration on Postnatal Day 4 (ng/g) ^b	2.66 ± 1.36 (4) **	53.7 ±	15.8 (3) *	341 ±	44.4 (4) *	1170 ±	137 (3) *	
PND 4	Whole Pup Trans-resveratrol 3-O-B-D glucuronide Concentration on Postnatal Day 4 (ng/g) ^b	BD	560 ±	109 (3)	3440 ±	388 (4)	10200 ±	253 (3)	
PND 4	Whole Pup Trans-resveratrol 3-sulfate Concentration on Postnatal Day 4 (ng/g) ^b	BD	275 ±	134 (3)	2470 ±	693 (4)	6820 ±	365 (3)	
PND 21	Trans-resveratrol Concentration in Plasma on Postnatal Day 21 (ng/ml) ^b	BD	12.4 ±	9.20 (2)	137 ±	81.8 (2)	1750 ±	201 (2)	
PND 21	Trans-resveratrol 3-O-B-D glucuronide Concentration in Plasma on Postnatal Day 21 (ng/ml) ^b	BD	13200 ±	5050 (2)	54700 ±	11100 (2)	416000 ±	4000 (2)	
PND 21	Trans-resveratrol 3-sulfate Concentration in Plasma on Postnatal Day 21 (ng/ml) ^b	BD	314 ±	187 (2)	4100 ±	2640 (2)	28600 ±	1870 (2)	
SD 95	Trans-resveratrol Concentration in Plasma on Study Day 95 (ng/ml) ^a	BD	BD		8.2 ±	7.35 (5)	32.9 ±	27.0 (5)	
SD 95	Trans-resveratrol 3-O-B-D glucuronide Concentration in Plasma on Study Day 95 (ng/ml) ^a	BD	21.8 ±	5.37 (5)	638 ±	473 (5)	6170 ±	5040 (5)	
SD 95	Trans-resveratrol 3-sulfate Concentration in Plasma on Study Day 95 (ng/ml) ^a	BD	BD		51.3 ±	45.9 (5)	763 ±	527 (5)	

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		F1 Female							
Phase	Dose (mg/kg)	0	78		312.5			1250	
PND 4	Whole Pup Trans-resveratrol Concentration on Postnatal Day 4 (ng/g) ^b	BD	67.5 ± 14.2 (3)		403 ± 106 (5)			1200 ± 137 (3)	
PND 4	Whole Pup Trans-resveratrol 3-O-B-D glucuronide Concentration on Postnatal Day 4 (ng/g) ^b	BD	823 ± 203 (3)		2060 ± 542 (5)			10300 ± 469 (3)	
PND 4	Whole Pup Trans-resveratrol 3-sulfate Concentration on Postnatal Day 4 (ng/g) ^b	BD	305 ± 116 (3)		1680 ± 629 (5)			6960 ± 351 (3)	
PND 21	Trans-resveratrol Concentration in Plasma on Postnatal Day 21 (ng/ml) ^b	BD	23.6 ± 18.9 (2)		73.4 ± 24.5 (2)			1290 ± 390 (2)	
PND 21	Trans-resveratrol 3-O-B-D glucuronide Concentration in Plasma on Postnatal Day 21 (ng/ml) ^b	BD	18200 ± 5010 (2)		44500 ± 550 (2)			321000 ± 122000 (2)	
PND 21	Trans-resveratrol 3-sulfate Concentration in Plasma on Postnatal Day 21 (ng/ml) ^b	BD	713 ± 486 (2)		2510 ± 1290 (2)			34500 ± 11000 (2)	
SD 95	Trans-resveratrol Concentration in Plasma on Study Day 95 (ng/ml) ^a	BD	BD		1.68 ± 0.832 (5)			21.6 ± 10.5 (5)	
SD 95	Trans-resveratrol 3-O-B-D glucuronide Concentration in Plasma on Study Day 95 (ng/ml) ^a	BD	642 ± 384 (5)		1770 ± 1100 (5)			20200 ± 12300 (5)	
SD 95	Trans-resveratrol 3-sulfate Concentration in Plasma on Study Day 95 (ng/ml) ^a	BD	22.8 ± 15.6 (5)		153 ± 115 (5)			1760 ± 1250 (5)	

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LEGEND

Data are displayed as mean \pm SEM (N) unless otherwise noted.

GD - Gestation Day; PND - Postnatal Day, SD - Study Day

If over 20% of the animals in a group are above the limit of detection, then 1/2 the limit of detection value is substituted for values that are below the limit of detection.

When the control group did not have over 20% of its values above the limit of detection, no mean or standard error were calculated; no statistical analysis was done for the endpoint.

^aStatistical analysis performed by Jonckheere (trend) and Shirley or Dunn (pairwise) tests.

^bStatistical analysis performed using a bootstrapped Jonckheere test for trend, and a Datta-Satten modified Wilcoxon test with Hommel adjustment for pairwise comparisons.

Statistical significance for the control group indicates a significant trend test

Statistical significance for a treatment group indicates a significant pairwise test compared to the vehicle control group

* Statistically significant at $P \leq 0.05$

** Statistically significant at $P \leq 0.01$

BD - Group did not have over 20% of its values above the limit of detection.

**** END OF REPORT ****