

Experiment Number: 962072

Test Type: **Genetic Toxicology - Bacterial  
Mutagenicity**

**G06: Ames Summary Data**

Test Compound: **Nitrofurantoin**

CAS Number: **67-20-9**

Date Report Requested: **09/17/2018**

Time Report Requested: **21:39:11**

**NTP Study Number:**

962072

**Study Result:**

Positive

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Mutagenicity

## G06: Ames Summary Data

Test Compound: Nitrofurantoin

CAS Number: 67-20-9

Date Report Requested: 09/17/2018

Time Report Requested: 21:39:11

## Strain: TA100

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Rat S9
Vehicle Control <sup>1</sup>	127 ± 2.4	132 ± 7.7	146 ± 1.8	135 ± 5.2	117 ± 6.4
0.01		145 ± 11.0			
0.03	201 ± 3.5				
0.1	358 ± 14.8	280 ± 6.6	212 ± 10.4	234 ± 16.2	180 ± 9.9
0.3	1035 ± 15.1	666 ± 16.8	442 ± 2.9	358 ± 21.9	308 ± 4.6
0.6		915 ± 71.1 <sup>s</sup>			
1.0	391 ± 49.3 <sup>s</sup>	770 ± 39.0 <sup>s</sup>	840 ± 53.3	722 ± 8.9 <sup>s</sup>	620 ± 13.5 <sup>s</sup>
1.5				761 ± 60.3 <sup>s</sup>	704 ± 16.9 <sup>s</sup>
2.0	327 ± 75.0 <sup>s</sup>		512 ± 28.3 <sup>s</sup>	802 ± 89.5 <sup>s</sup>	776 ± 37.3 <sup>s</sup>
3.3			273 ± 11.7 <sup>s</sup>		
Trial Summary	Positive	Positive	Positive	Positive	Positive
Positive Control <sup>2</sup>					
Positive Control <sup>3</sup>			1162 ± 31.1	260 ± 10.8	748 ± 30.1
Positive Control <sup>4</sup>	2300 ± 24.3	978 ± 46.9			

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## Strain: TA100

Dose (ug/Plate)	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control <sup>1</sup>	139 ± 0.9	146 ± 2.7	131 ± 5.4
0.01			
0.03			
0.1	299 ± 3.2	265 ± 4.8	247 ± 16.3
0.3	836 ± 69.2	539 ± 3.9	587 ± 30.3
0.6			
1.0	610 ± 67.6	640 ± 72.0 <sup>s</sup>	855 ± 13.7 <sup>s</sup>
1.5		487 ± 75.6 <sup>s</sup>	337 ± 42.3 <sup>s</sup>
2.0	195 ± 8.6 <sup>s</sup>	386 ± 98.7 <sup>s</sup>	248 ± 38.4 <sup>s</sup>
3.3	290 ± 52.8 <sup>s</sup>		
Trial Summary	Positive	Positive	Positive
Positive Control <sup>2</sup>	2210 ± 33.2	176 ± 9.1	1011 ± 53.4
Positive Control <sup>3</sup>			
Positive Control <sup>4</sup>			

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Strain: TA1535

Dose (ug/Plate)	Without S9	With 10% Rat S9	With 10% Hamster S9
Vehicle Control <sup>1</sup>	36 ± 4.2	11 ± 1.7	10 ± 2.5
0.03	32 ± 3.2		
0.1	33 ± 2.0	9 ± 2.5	9 ± 1.2
0.3	22 ± 3.8	14 ± 4.1	9 ± 2.3
1.0	16 ± 3.8 <sup>s</sup>	11 ± 0.0	14 ± 2.3
2.0	17 ± 2.3 <sup>s</sup>	13 ± 2.6 <sup>s</sup>	9 ± 1.5 <sup>s</sup>
3.3		12 ± 2.6 <sup>s</sup>	7 ± 2.5 <sup>s</sup>
Trial Summary	Negative	Negative	Negative
Positive Control <sup>2</sup>			152 ± 1.0
Positive Control <sup>3</sup>		56 ± 5.2	
Positive Control <sup>4</sup>	1609 ± 26.0		

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## G06: Ames Summary Data

Test Compound: Nitrofurantoin

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## Strain: TA1537

Dose (ug/Plate)	Without S9	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9
Vehicle Control <sup>1</sup>	6 ± 2.5	6 ± 0.6	4 ± 0.9	6 ± 0.7	7 ± 1.8
0.01		7 ± 1.7	5 ± 1.2		
0.03	8 ± 0.9				
0.1	7 ± 1.8	7 ± 0.3	4 ± 1.2	9 ± 1.5	9 ± 0.7
0.3	7 ± 0.9	7 ± 1.5	8 ± 0.6	8 ± 2.0	7 ± 0.9
0.6		6 ± 0.9	6 ± 1.2		
1.0	12 ± 1.2 <sup>s</sup>	10 ± 1.2 <sup>s</sup>	10 ± 1.8	8 ± 1.2	8 ± 0.9
1.5					10 ± 1.2 <sup>s</sup>
2.0	13 ± 2.6 <sup>s</sup>			10 ± 2.0	8 ± 1.2 <sup>s</sup>
3.3				14 ± 4.3 <sup>s</sup>	
Trial Summary	Equivocal	Negative	Equivocal	Equivocal	Negative
Positive Control <sup>2</sup>					
Positive Control <sup>3</sup>				112 ± 19.8	39 ± 2.5
Positive Control <sup>5</sup>	505 ± 33.5	265 ± 11.7	292 ± 21.0		

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Strain: TA1537

Dose (ug/Plate)	With 10% Rat S9	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control <sup>1</sup>	6 ± 1.5	7 ± 0.3	9 ± 2.8	8 ± 1.2
0.01				
0.03				
0.1	8 ± 1.5	6 ± 0.9	10 ± 3.3	5 ± 1.5
0.3	5 ± 0.7	10 ± 1.8	9 ± 2.4	8 ± 0.3
0.6				
1.0	9 ± 1.8	10 ± 1.2	15 ± 2.2	5 ± 0.9
1.5	8 ± 2.3 <sup>s</sup>		13 ± 1.5 <sup>s</sup>	8 ± 1.3 <sup>s</sup>
2.0	11 ± 0.3 <sup>s</sup>	21 ± 1.0	15 ± 1.5 <sup>s</sup>	11 ± 2.3 <sup>s</sup>
3.3		16 ± 2.4 <sup>s</sup>		
Trial Summary	Negative	Equivocal	Negative	Negative
Positive Control <sup>2</sup>		254 ± 6.3	33 ± 1.2	101 ± 5.8
Positive Control <sup>3</sup>	39 ± 3.5			
Positive Control <sup>5</sup>				

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## Strain: TA98

Dose (ug/Plate)	Without S9	Without S9	With 10% Rat S9	With 10% Rat S9	With 10% Rat S9
Vehicle Control <sup>1</sup>	18 ± 1.7	11 ± 1.3	30 ± 3.0	24 ± 0.7	25 ± 3.5
0.01		16 ± 3.2			
0.03	16 ± 4.1				
0.1	22 ± 2.0	18 ± 2.3	30 ± 2.0	27 ± 2.9	23 ± 1.7
0.3	36 ± 5.4	33 ± 1.0	32 ± 3.2	28 ± 3.2	31 ± 2.2
0.6		47 ± 1.5			
1.0	66 ± 3.3 <sup>s</sup>	56 ± 2.0 <sup>s</sup>	59 ± 4.8	39 ± 3.2	40 ± 2.8
1.5				50 ± 4.4	46 ± 3.0
2.0	35 ± 7.9 <sup>s</sup>		69 ± 6.1	53 ± 5.9 <sup>s</sup>	52 ± 3.8 <sup>s</sup>
3.3			45 ± 3.5 <sup>s</sup>		
Trial Summary	Positive	Positive	Weakly Positive	Weakly Positive	Weakly Positive
Positive Control <sup>2</sup>					
Positive Control <sup>3</sup>			923 ± 39.6	392 ± 10.1	519 ± 73.3
Positive Control <sup>6</sup>	1469 ± 18.3	1250 ± 13.7			

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Strain: TA98

Dose (ug/Plate)	With 10% Hamster S9	With 10% Hamster S9	With 10% Hamster S9
Vehicle Control <sup>1</sup>	23 ± 2.0	25 ± 4.4	26 ± 1.3
0.01			
0.03			
0.1	38 ± 3.5	29 ± 1.2	27 ± 4.6
0.3	45 ± 6.3	32 ± 1.3	30 ± 2.6
0.6			
1.0	73 ± 2.9	55 ± 4.4	57 ± 11.8
1.5		56 ± 1.7 <sup>s</sup>	62 ± 1.0 <sup>s</sup>
2.0	54 ± 9.1 <sup>s</sup>	55 ± 4.9 <sup>s</sup>	68 ± 3.5 <sup>s</sup>
3.3	20 ± 3.2 <sup>s</sup>		
Trial Summary	Positive	Weakly Positive	Weakly Positive
Positive Control <sup>2</sup>	1960 ± 41.6	201 ± 23.7	1004 ± 82.8
Positive Control <sup>3</sup>			
Positive Control <sup>6</sup>			



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#### LEGEND

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Values given as Mean or Mean  $\pm$  Standard Error Mean

The number of samples = 3, unless samples marked toxic or contaminated were excluded from mean and SEM calculations

CAS Number = Chemical Abstracts Service registry number

1: Vehicle Control: Dimethyl Sulfoxide

2: 0.75 ug/Plate 2-Aminoanthracene

3: 1.5 ug/Plate 2-Aminoanthracene

4: 2.5 ug/Plate Sodium Azide

5: 80.0 ug/Plate 9-Aminoacridine

6: 12.0 ug/Plate 4-Nitro-O-Phenylenediamine

s: Slight Toxicity

\*\* END OF REPORT \*\*