

**Experiment Number:** R92025B  
**Test Type:** RACB  
**Route:** Dosing in Feed  
**Species/Strain:** Rat/Sprague-Dawley

**R04: Developmental Markers Summary: AGD**  
**Test Compound:** 4-Methylimidazole  
**CAS Number:** 822-36-6

**Date Report Requested:** 05/17/2018  
**Time Report Requested:** 13:42:21  
**Lab:** RTI

<b>C Number:</b>	R92025B
<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

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Male Pups

Generation	Litter ID	Cohort	PND1	Treatment Groups (ppm)			
				0	750	2500	5000
F1	A		No. Examined (litters)	159 (22)	139 (22)	46 (14)	3 (1)
			Anogenital Distance (mm)	2.24 ± 0.05 *	2.17 ± 0.05	2.04 ± 0.06 *	1.74 ± 0
			Bodyweight (g)	7.06 ± 0.12 *	6.98 ± 0.11	6.66 ± 0.14	4.95 ± 0
			Adjusted AGD (mm)	2.22 ± 0.05	2.17 ± 0.05	2.08 ± 0.06	2.03 ± 0
F1	B		No. Examined (litters)	120 (19)	149 (23)	54 (17)	1 (1)
			Anogenital Distance (mm)	2.20 ± 0.02	2.23 ± 0.01	2.22 ± 0.03	2.16 ± 0
			Bodyweight (g)	7.08 ± 0.12	7.18 ± 0.11	7.20 ± 0.18	6.71 ± 0
			Adjusted AGD (mm)	2.20 ± 0.02	2.22 ± 0.01	2.21 ± 0.03	2.19 ± 0
F1	C		No. Examined (litters)	110 (18)	138 (22)	67 (15)	
			Anogenital Distance (mm)	2.09 ± 0.03	2.10 ± 0.03	2.10 ± 0.05	
			Bodyweight (g)	7.03 ± 0.11	7.11 ± 0.12	7.15 ± 0.28	
			Adjusted AGD (mm)	2.08 ± 0.03	2.09 ± 0.02	2.09 ± 0.05	
F2	A		No. Examined (litters)	159 (33)	151 (32)	86 (26)	
			Anogenital Distance (mm)	2.19 ± 0.03	2.10 ± 0.04	2.12 ± 0.04	
			Bodyweight (g)	7.01 ± 0.13 *	7.38 ± 0.12	6.63 ± 0.17	
			Adjusted AGD (mm)	2.19 ± 0.03	2.08 ± 0.04	2.14 ± 0.03	
F2	B		No. Examined (litters)	212 (34)	227 (35)	132 (29)	
			Anogenital Distance (mm)	2.20 ± 0.02 *	2.20 ± 0.02	2.14 ± 0.02	
			Bodyweight (g)	7.08 ± 0.12	7.18 ± 0.11	6.81 ± 0.14	
			Adjusted AGD (mm)	2.19 ± 0.02	2.18 ± 0.02	2.15 ± 0.02	
F2	C		No. Examined (litters)	127 (28)	155 (33)	78 (20)	
			Anogenital Distance (mm)	2.23 ± 0.04	2.22 ± 0.04	2.15 ± 0.03	

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**Male Pups**

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Generation	Litter ID	Cohort	PND1	Treatment Groups (ppm)			
				0	750	2500	5000
			Bodyweight (g)	7.32 ± 0.15	7.49 ± 0.18	6.99 ± 0.17	
			Adjusted AGD (mm)	2.22 ± 0.04	2.20 ± 0.03	2.18 ± 0.03	

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Female Pups

Generation	Litter ID	Cohort	PND1	Treatment Groups (ppm)			
				0	750	2500	5000
F1	A		No. Examined (litters)	138 (22)	140 (22)	75 (15)	1 (1)
			Anogenital Distance (mm)	1.07 ± 0.03	1.08 ± 0.02	1.09 ± 0.03	0.90 ± 0
			Bodyweight (g)	6.67 ± 0.12 *	6.64 ± 0.11	6.35 ± 0.15	4.66 ± 0
			Adjusted AGD (mm)	1.06 ± 0.02	1.08 ± 0.02	1.11 ± 0.03	1.04 ± 0
F1	B		No. Examined (litters)	134 (19)	141 (23)	81 (17)	1 (1)
			Anogenital Distance (mm)	1.22 ± 0.01	1.22 ± 0.02	1.25 ± 0.01	1.26 ± 0
			Bodyweight (g)	6.63 ± 0.13	6.77 ± 0.12	6.91 ± 0.10	5.56 ± 0
			Adjusted AGD (mm)	1.23 ± 0.01	1.21 ± 0.01	1.24 ± 0.01	1.33 ± 0
F1	C		No. Examined (litters)	117 (19)	134 (22)	77 (15)	
			Anogenital Distance (mm)	1.07 ± 0.02	1.04 ± 0.02	1.08 ± 0.02	
			Bodyweight (g)	6.74 ± 0.14	6.72 ± 0.11	6.59 ± 0.21	
			Adjusted AGD (mm)	1.06 ± 0.02	1.04 ± 0.01	1.09 ± 0.02	
F2	A		No. Examined (litters)	199 (31)	154 (32)	101 (24)	
			Anogenital Distance (mm)	1.12 ± 0.02	1.11 ± 0.02	1.11 ± 0.02	
			Bodyweight (g)	6.72 ± 0.11	7.00 ± 0.12	6.53 ± 0.16	
			Adjusted AGD (mm)	1.12 ± 0.02	1.10 ± 0.02	1.12 ± 0.02	
F2	B		No. Examined (litters)	234 (34)	201 (36)	128 (29)	
			Anogenital Distance (mm)	1.08 ± 0.02	1.11 ± 0.02	1.10 ± 0.02	
			Bodyweight (g)	6.74 ± 0.10 *	6.82 ± 0.12	6.45 ± 0.15	
			Adjusted AGD (mm)	1.07 ± 0.02	1.10 ± 0.02	1.11 ± 0.02	
F2	C		No. Examined (litters)	135 (27)	149 (32)	92 (22)	
			Anogenital Distance (mm)	1.13 ± 0.03	1.13 ± 0.03	1.10 ± 0.03	

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**Female Pups**

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Generation	Litter ID	Cohort	PND1	Treatment Groups (ppm)			
				0	750	2500	5000
			Bodyweight (g)	6.86 ± 0.16	7.03 ± 0.14	6.80 ± 0.16	
			Adjusted AGD (mm)	1.13 ± 0.03	1.11 ± 0.03	1.10 ± 0.03	

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## LEGEND

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Data are displayed as mean  $\pm$  SEM

AGD is adjusted for body weight.

Statistical analysis was performed using mixed models, with dam ID as random effect were used for trend and pairwise tests, with the Dunnett-Hsu adjustment for multiple 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  $P \leq 0.01$

Data with sample sizes of 1 or 2 were excluded from the trend and multiple comparisons tests.

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