

Behavioral parameters for WT and *Hoxb8* mutant mice from Laboras experiments

Male/Female

Age (mths)	Behavioral Paradigm	Genotype and 'n'		P value	Statistical test
		WT (n=79) Mean ± SEM	KO (n=133) Mean ± SEM		
4-12 months	Undefined duration	20726 ± 364	20812 ± 326	0.984	One-way ANOVA Tukey's posthoc test
	Climb duration	8031 ± 485	5595 ± 366	0.0001 *	
	Locomotion duration	2551 ± 100	2120 ± 63.8	0.0017 *	
	Immobility duration	43801 ± 483	42159 ± 395	0.0288 *	
	Grooming duration	7431 ± 286	10949 ± 309	<0.0001 *	
	Drinking duration	338 ± 19.6	377 ± 19.1	0.4649	
	Eating duration	3518 ± 180	4385 ± 171	0.0025 *	
	Undefined frequency	5911 ± 144	5801 ± 103	0.811	
	Climbing frequency	379 ± 29.4	207 ± 13.6	<0.0001 *	
	Locomotion frequency	3909 ± 142	3811 ± 93.2	0.8277	
	Immobility frequency	1304 ± 40.7	1453 ± 55.7	0.1232	
	Grooming frequency	969 ± 35	1181 ± 34.6	<0.0001 *	
	Drinking frequency	83.5 ± 4.35	83.5 ± 3.58	1	
	Eating frequency	844.7 ± 42.4	1118 ± 45.3	<0.0001 *	
	Total frequency	13401 ± 317.4	13653 ± 223	0.7843	
	Maximum speed	278 ± 3.97	275 ± 3.15	0.7816	
	Total speed maximum	32821 ± 1967	29638 ± 1399	0.3812	
	Speed LAVG	80 ± 0.400	79.1 ± 0.303	0.2291	
	Speed average	1.785 ± 0.0655	1.60 ± 0.042	0.0375 *	
	Distance	154 ± 5.66	138 ± 3.606	0.0375 *	

Female

Age (mths)	Behavioral Paradigm	Genotype and 'n'		P value	Statistical test
		WT (n=49) Mean ± SEM	KO (n=69) Mean ± SEM		
4-12 months	Undefined duration	19834 ± 410	19778 ± 443	0.9961	One-way ANOVA Tukey's posthoc test
	Climb duration	9676 ± 521	6993 ± 546	0.0033 *	
	Locomotion duration	2649 ± 142	2170 ± 97.9	0.0317 *	
	Immobility duration	42104 ± 554	40969 ± 588	0.4138	
	Grooming duration	8329 ± 335	11719 ± 490	<0.0001 *	
	Drinking duration	346 ± 22.8	352 ± 26	0.985	
	Eating duration	3461 ± 214	4417 ± 274	0.0379 *	
	Undefined frequency	5905 ± 194	5657 ± 457	0.6194	
	Climbing frequency	422 ± 31.9	240 ± 22.3	<0.0001 *	
	Locomotion frequency	3906 ± 192	3672 ± 138	0.6168	
	Immobility frequency	1218 ± 44.3	1420 ± 88.7	0.1644	
	Grooming frequency	1049 ± 43	1224 ± 51.8	0.0447 *	
	Drinking frequency	91.6 ± 5.31	82.9 ± 5.39	0.5272	
	Eating frequency	862.4 ± 47.8	1149 ± 70.3	0.0051 *	
	Total frequency	13454 ± 424	13445 ± 348	0.999	
	Maximum speed	270 ± 4.12	277 ± 4.72	0.5022	
	Total speed maximum	33873 ± 2763	30870 ± 2097	0.6588	
	Speed LAVG	80.6 ± 0.519	80.1 ± 0.464	0.8408	
	Speed average	1.85 ± 0.092	1.614 ± 0.068	0.117	
	Distance	159.8 ± 7.92	139.5 ± 5.85	0.117	

Male

Age (mths)	Behavioral Paradigm	Genotype and 'n'		P value	Statistical test
		WT (n=30) Mean ± SEM	KO (n=64) Mean ± SEM		
4-12 months	Undefined duration	20726 ± 364	20813 ± 326	0.9385	One-way ANOVA Tukey's posthoc test
	Climb duration	8032 ± 485	5595 ± 366	0.1893	
	Locomotion duration	2551 ± 100.4	2120 ± 63.8	0.1026	
	Immobility duration	43801 ± 483	42159 ± 395	0.0002 *	
	Grooming duration	7432 ± 286	10949 ± 309	<0.0001 *	
	Drinking duration	338 ± 19.6	377 ± 19.1	0.316	
	Eating duration	3519 ± 180	4385 ± 171	0.0807	
	Undefined frequency	5911 ± 144	5801 ± 103.5	0.9888	
	Climbing frequency	379 ± 29.4	207 ± 13.6	0.0019 *	
	Locomotion frequency	3909 ± 142	3811 ± 93.2	0.9774	
	Immobility frequency	1304 ± 40.7	1453 ± 55.7	0.906	
	Grooming frequency	969 ± 35.1	1181 ± 34.6	<0.0001 *	
	Drinking frequency	83.5 ± 4.35	83.5 ± 3.58	0.5259	
	Eating frequency	844.7 ± 42.4	1118 ± 45.25	0.0079 *	
	Total frequency	13400 ± 317	13653 ± 223	0.5107	
	Maximum speed	278.2 ± 3.97	275 ± 3.15	0.0548	
	Total speed maximum	32821 ± 1967	29637 ± 1399	0.6878	
	Speed LAVG	80 ± 0.400	79.1 ± 0.303	0.3188	
	Speed average	1.79 ± 0.065	1.596 ± 0.0417	0.5082	
	Distance	154.2 ± 5.66	137.9 ± 3.606	0.5082	