

SUPPLEMENTAL MATERIAL

Table SI. Physiological variables of mice examined in figure 1.

Genotypes	Age (months)	Stimuli	N	MAP (mmHg)	pCO ₂ (mmHg)	pO ₂ (mmHg)	pH
WT	3	Whisker, A23187, SNAP	5	80±6	30.3±3.8	132.0±7.0	7.38±0.02
		ACh, Bradykinin, Adenosine	5	81±5	32.9±1.0	129.3±14.3	7.36±0.03
		Hypercapnia	5	80±3	57.3±2.1*	132.9±8.5	7.17±0.02*
	18	Whisker, A23187, SNAP	5	84±2	35.0±1.1	127.6±7.2	7.42±0.02
		ACh, Bradykinin, Adenosine	5	84±2	34.7±1.6	131.8±7.5	7.40±0.04
		Hypercapnia	5	86±2	56.9±1.5*	123.1±9.0	7.23±0.03*
	24	Whisker, A23187, SNAP	5	81±5	31.9±2.6	118.9±6.8	7.38±0.03
		ACh, Bradykinin, Adenosine	5	80±4	33.2±2.6	124.2±5.9	7.35±0.02
Hypercapnia		5	81±6	55.4±2.1*	131.0±4.2	7.19±0.01*	
Tg-SwDI	3	Whisker, A23187, SNAP	5	83±7	32.4±1.7	126.3±7.6	7.39±0.04
		ACh, Bradykinin, Adenosine	5	84±6	32.9±1.2	130.1±6.5	7.38±0.04
		Hypercapnia	5	83±7	56.6±1.3*	130.8±3.4	7.20±0.03*
	18	Whisker, A23187, SNAP	5	75±5	27.1±1.8	136.8±10.9	7.38±0.02
		ACh, Bradykinin, Adenosine	5	74±5	28.7±1.9	132.9±10.0	7.38±0.03
		Hypercapnia	5	73±6	55.2±0.3*	136.6±4.2	7.19±0.01*
	24	Whisker, A23187, SNAP	5	72±7	34.3±2.6	126.0±3.6	7.39±0.04
		ACh, Bradykinin, Adenosine	5	71±8	35.5±2.3	124.9±8.8	7.38±0.03
Hypercapnia		5	68±8	56.5±4.5*	123.0±4.9	7.14±0.01*	

Mean±SEM; *p<0.05 vs normocapnia

Table SII. Physiological variables of mice examined in figure 4.

Genotypes	Treatment	Age (months)	Stimuli	N	MAP (mmHg)	pCO ₂ (mmHg)	pO ₂ (mmHg)	pH
WT	Vehicle	3	Whisker, A23187, Adenosine	6	84±5	33.9±2.0	131.5±10.0	7.38±0.02
			Hypercapnia	6	84±5	55.7±2.0*	131.4±6.3	7.19±0.03*
	MnTBAP		Whisker, A23187, Adenosine	6	84±4	32.9±1.5	130.9±9.6	7.37±0.02
			Hypercapnia	6	83±2	55.2±1.2*	128.7±9.9	7.20±0.02*
	Vehicle	18	Whisker, A23187, Adenosine	6	81±3	33.7±0.9	133.4±8.1	7.38±0.02
			Hypercapnia	6	80±2	56.7±1.2*	131.5±6.6	7.21±0.01*
	MnTBAP		Whisker, A23187, Adenosine	6	82±1	35.1±1.4	128.1±5.9	7.39±0.03
			Hypercapnia	6	82±1	57.6±2.9*	128.4±5.5	7.22±0.02*
Tg-SwDI	Vehicle	3	Whisker, A23187, Adenosine	5	83±1	36.5±2.2	129.9±10.6	7.38±0.01
			Hypercapnia	5	82±1	54.6±1.7*	133.2±3.1	7.23±0.02*
	MnTBAP		Whisker, A23187, Adenosine	5	83±1	34.4±1.2	134.4±2.8	7.38±0.01
			Hypercapnia	5	83±1	52.6±2.1*	136.7±9.0	7.22±0.02*
	Vehicle	18	Whisker, A23187, Adenosine	5	81±1	34.4±1.1	135.9±5.3	7.39±0.01
			Hypercapnia	5	80±1	55.0±2.2*	125.7±6.8	7.20±0.02*
	MnTBAP		Whisker, A23187, Adenosine	5	80±1	35.6±1.8	128.5±6.1	7.38±0.02
			Hypercapnia	5	80±1	55.2±1.7*	129.2±11.4	7.22±0.02*

Mean±SEM; *p<0.05 vs normocapnia