

Table S1. Overview of sample size and data distribution of warm normoxic (WN), cold normoxic (CN) and cold anoxic turtles (CA) tested by Shapiro-Wilks-test. Significant differences in normal distributed data of warm normoxic turtles, cold normoxic turtles and cold anoxic turtles were assessed by one-way ANOVA with Dunnett's multiple comparisons test. Non-normal distributed data sets comparisons were assessed by non-parametric Kruskal-Wallis test with Dunn's multiple comparisons test. In all cases the significance level was $P<0.05$.

			Concentration ($\mu\text{mol L}^{-1}$)		Concentration (nmol mg^{-1} protein h^{-1})	Protein (mg mL^{-1})
		Sample size	Free H ₂ S	BSS	Free H ₂ S	BSS
			Normal distributed	Normal distributed	Normal distributed	Normal distributed
Kidney	WN	3	No	Yes	Yes	Yes
	CN	4	No	Yes	Yes	Yes
	CA	4	No	Yes	Yes	Yes
Brain	WN	5	Yes	Yes	Yes	Yes
	CN	5	Yes	No	No	Yes
	CA	4	Yes	Yes	Yes	Yes
Liver	WN	5	Yes	Yes	Yes	Yes
	CN	5	Yes	Yes	Yes	Yes
	CA	4	Yes	Yes	Yes	Yes
Lung	WN	5	Yes	Yes	Yes	Yes
	CN	5	Yes	Yes	Yes	No
	CA	4	Yes	Yes	Yes	Yes
RBCs	WN	4	Yes	Yes	Yes	Yes
	CN	5	Yes	No	Yes	Yes
	CA	4	Yes	Yes	Yes	Yes

Figure S1. H₂S metabolites and protein content in tissues and RBCs of *T. scripta* expressed as mol mg⁻¹ protein. Levels of free H₂S, bound sulfane sulfur and protein content in warm normoxic turtles, (black, $N=5$ brain, liver, lung, $N=4$ RBCs and $N=3$ kidney) and cold normoxic turtles, (grey, $N=5$ brain, liver, lung, $N=4$ RBCs and kidney) and cold anoxic turtles, (white, $N=4$ for all tissues). Data are shown as means \pm s.e.m. Significant differences (ANOVA/Kruskal-Wallis test) are indicated with asterisks (* $P<0.05$).

