		Equivalents of peroxynitrite							
Protein	Temperature	No added CO_2				1.1 mM CO_2			
		1	5	10	20	1	5	10	20
apoMb	0 °C	n.d.[a]	5±1	11±2	19±3	2.7±0.1	14.7±0.5	19.0±0.7	30.5±0.7
	20 °C	n.d.	n.d.	12±1	n.d.	2.8±0.1	21±1	27.3±0.8	43±2
metMb	0 °C	n.d.	0.7±0.1	1.1±0.2	7±1	0.52±0.05	2.8±0.2	3.8±0.5	8.3±0.2
	20 °C	n.d.	n.d.	2.1±0.1	n.d.	0.7±0.1	3.8±0.1	7.6±0.1	15±2
oxyMb	0 °C	n.d.	1.0±0.4	1.4±0.2	4.6±0.3	1.3±0.1	7.2±0.2	10.7±0.2	14.7±0.2
	20 °C	n.d.	n.d.	3.2±0.1	n.d.	1.8±0.5	9±1	13.3±0.5	19.0±0.1
metMbCN	0 °C	n.d.	9.3±0.1	11.0±0.3	14.6±0.7	n.d.	14.4±0.8	19.0±0.7	26±1
metHb	0 °C	1.0±0.1	2.9±0.1	3.9±0.1	7.0±0.2	1.4±0.1	5.7±0.4	11.7±0.4	17.6±0.5
	20 °C	n.d.	n.d.	n.d.	n.d.	2.0±0.1	7.0±0.1	10.0±0.4	17.8±0.2
oxyHb	0 °C	0.9±0.1	3.6±0.1	5.8±0.5	9±2	1.2±0.3	6.7±0.7	14.3±0.9	22.5±0.8
	20 °C	n.d.	n.d.	n.d.	n.d.	1.5±0.1	8.8±0.1	18.0±0.1	23.6±0.4

[a] not determined.

Table S2. NO_2-Tyr yields (% relative to the total content of the protein, that is 2 tyrosine residues per heme), determined by HPLC after acid hydrolysis, from the reaction of apo-, met-, oxyMb (final concentration 100 μM) with 20 equiv of peroxynitrite (final concentration 2 mM) containing 1, 2, 3, and 5 mM nitrite. The experiments were carried out at 0 °C, pH 7.0 and in the absence or in the presence of 1.1 mM CO_2.

		Equivalents of peroxynitrite/equivalents of nitrite							
Protein	Temperature	No added CO_2				1.1 mM CO_2			
		20/10	20/20	20/30	20/50	20/10	20/20	20/30	20/50
apoMb	0 °C	19±3	23±2	20±1	17.0±0.6	30.5±0.7	25.5±0.2	24±1	20.8±0.8
metMb	0 °C	7±1	7.1[a]	n.d.	n.d.	8.3±0.2	10±3	10.0±0.2	7.3±0.8
oxyMb	0 °C	4.6±0.3	4.2±0.9	3.8±0.4	3.5±0.3	14.7±0.2	13.4±0.1	15±1	15±2

[a] Result of a single experiment.