

**Supplemental Table S1**

**Rates of anaerobic flavin reduction of nNOS<sub>red</sub> proteins by single molar equivalent NADPH at 600 nm.** Reductions by a single molar equivalent of NADPH were carried out in the stopped-flow apparatus at 10 °C while monitoring the absorbance changes at 600 nm as described under "Experimental Procedures." All rates are the result of fitting absorbance changes to a single exponential function.

<b>Sample Type</b>	<b>Initial phase</b> s <sup>-1</sup>	<b>Slow phase</b> s <sup>-1</sup>
Wild type -CaM	23.6 ± 0.27	0.062 ± 0.0007
K842E - CaM	92 ± 3	0.08 ± 0.002