Supplemental data

Figure S1- Visible spectra of oxidized *N. equitans* in the presence of 40 mM phosphate at pH 7.2 (solid line) and pH 10.0 (dashed line). Inset shows the pH-dependence of the absorbance changes at 640 nm and the solid line was obtained assuming a single protonation equilibrium with a $pK_a = 8.5 \pm 0.1$. 
Figure S2- Redox titrations of recombinant *N. equitans* Nlr followed by visible spectroscopy monitored at 557 nm. The solid line corresponds to a Nernst equation with $E_0 = +350 \pm 10$ mV (n=1).
Figure S3- Comparison of the visible spectra of oxidized *N. equitans* Nlr and P8E mutant at pH 8.5 (solid line) and pH 5.5 (dashed line).
Figure S4- Reconstituted visible absorption spectra of the transient species observed in the reaction of Nlr with superoxide at pH 7.5 in the presence of 40 mM phosphate. Closed circles correspond to the spectra of the first transient, open circles correspond to the second transient, and closed squares correspond to final product. Spectra of the first transient and final product obtained in the absence of phosphate are shown for comparison (dotted and dashed lines, respectively). The solid line shows the absorption spectra of oxidized Nlr at pH 7.5 in the presence of 40 mM phosphate.
Figure S5 – Three dimensional fold and surface potential figures of (a) *A. fulgidus* Nlr model [5], (b) *P. furiosus* Nlr crystallographic structure [11] and (c) *N. equitans* Nlr model. This picture was built using PYMOL (DeLano W.D., The Pymol Molecular Graphics System, 2002, On World Wide Web [http://www.pymol.org](http://www.pymol.org))