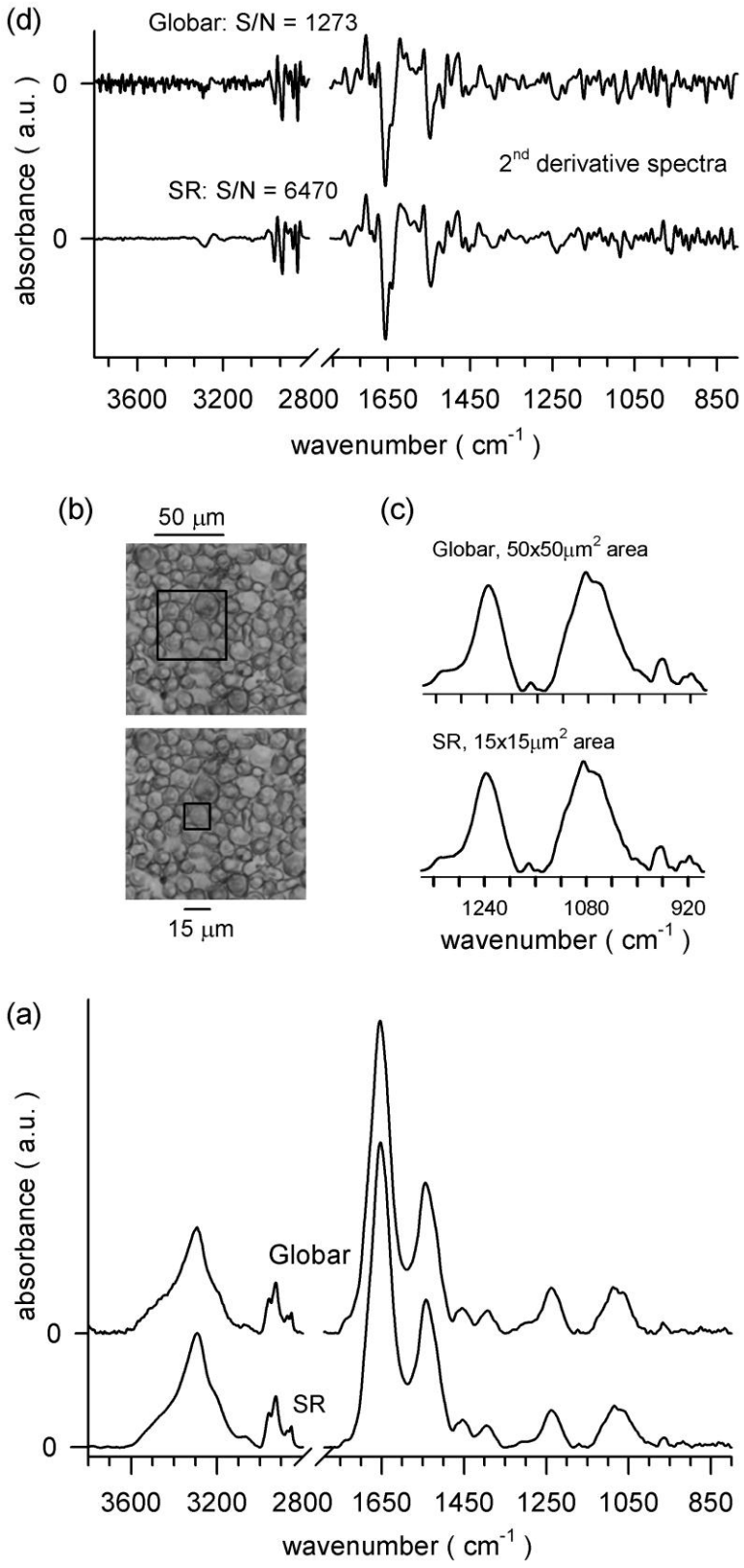

Fig. S1. The optimization of microFTIR analysis in samples. (a) Two spectra of the same individual cell restricted by 15x15 µm2 aperture slits (b) were obtained by microFTIR performed consecutively with synchrotron radiation (SR) and globar as the external and internal IR sources, respectively. The second derivative of these two spectra are shown in (d) where significantly different signal to noise (S/N) values achieved in each spectrum within the 2600-2400 cm-1 interval of wavenumber have been also reported. To improve the quality in the spectra acquired with globar, the aperture slits were set to 50x50 µm2 (b) and IR signals were collected from larger areas over homogeneous zones within samples. (c) Spectra with similar quality were obtained within the 1300-900 cm-1 interval of wavenumber by microFTIR with SR and with globar allowing to apply algorithms for unsupervised pattern recognition to a wide interval of wavenumber values. See DOI: 10.1039/b000000x/

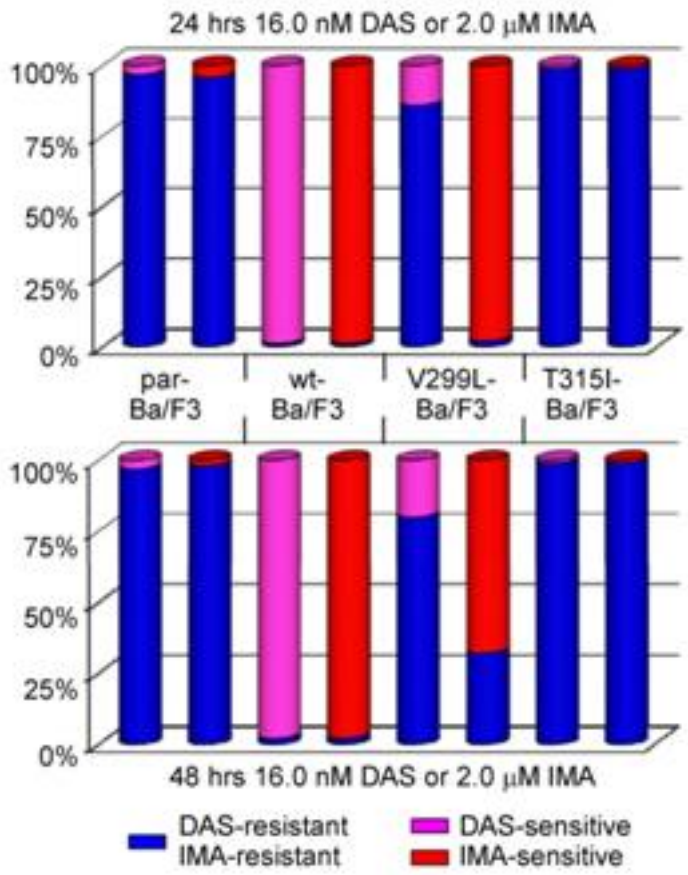

Fig. S2. Cumulative fractions of drug-resistant (blue bars) and drug-sensitive (pink and red bars) cells identified by SR microFTIR+HCA in samples (mean of 3 independent experiments). See DOI: 10.1039/b000000x/