

We experimentally observe a sizable and reversible spectral tuning of the resonances of a two-dimensional photonic crystal microcavity induced by the introduction of a subwavelength size glass tip. The comparison between experimental near-field data, collected with $\lambda/6$ spatial resolution, and results of numerical calculations shows that the spectral shift induced by the tip is proportional to the local electric field intensity of the cavity mode. This observation proves that the electromagnetic local density of states in a microcavity can be directly measured by mapping the tip-induced spectral shift with a scanning near-field optical microscope.