**Table S1.** The sensibility and specificity of AI-Blue-Carba and Blue-Carba from different time group

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | AI-Blue-Carba | |  | Blue-Carba | |
| Time Group | sensibility | specificity |  | sensibility | specificity |
| 0-5min | 94.4% | 82.6% |  | 82.2% | 100% |
| 0-10min | 95.3% | 95.7% |  | 90.6% | 100% |
| 0-15min | 95.3% | 95.7% |  | 92.5% | 100% |
| 0-20min | 96.3% | 95.7% |  | 92.5% | 100% |
| 0-25min | 96.3% | 100% |  | 92.5% | 100% |
| 0-30min | 96.3% | 100% |  | 93.5% | 100% |
| 0-35min | 96.3% | 100% |  | 96.5% | 100% |
| 0-40min | 96.3% | 100% |  | 96.5% | 100% |
| 0-45min | 96.3% | 100% |  | 96.5% | 100% |
| 0-50min | 96.3% | 100% |  | 96.5% | 100% |
| 0-55min | 96.3% | 100% |  | 96.5% | 100% |
| 0-60min | 96.3% | 100% |  | 96.5% | 100% |

**Figure S1**. Determined the optimum wavelength of yellow and blue. A. Scanned the optimum wavelength of positive result of Blue-Carba(yellow); B. Scanned the optimum wavelength of negative result of Blue-Carba(blue).

**Figure S2.** Determined the diluent and bacterial concentration of AI-Blue-Carba. A-C and D-F were diluted by PBS and ddH2O, respectively. The bacterial concentration of A and D, Band E, and C and F were 1.0 OD, 1.5 OD, 2.0 OD, respectively.