

Table 1. Determination of detection limit using each labeled antibody

Labeling Modality Profile	Detection Limit (particles)
AuSP	5.8×10^7
AuPL	1.2×10^7
HRP	7.3×10^5
ALP	8.7×10^6

Note: LOD was calculated using the formula: $(3.3 \times \text{SD of the blank}) / \text{Slope}$. The slope was determined from the linear range of the calibration curve: from the blank to 1.0×10^8 particles for AuSP and AuPL, and from the blank to 1.0×10^7 particles for HRP and ALP.