

SpheroTECHNICAL NOTES

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Binding Capacity of Biotin Magnetic Particles:

MATERIALS:

1. Biotin magnetic particles, 1% w/v, Cat. # TM-40-10
Lot No. J01, 4.32 μm
2. Avidin-FITC solution, Jackson ImmunoResearch, #003-090-083, Lot No. 21452, 5 $\mu\text{g/ml}$ in 1% diluent. (IBS containing 1% normal goat serum and 1% fetal bovine serum)

PROCEDURES:

1. Adjust the fluorimeter for excitation and emission at 490 and 520 nm respectively.
2. Set 100% emission with the Avidin-FITC solution.
3. Add 25, 50, 75, 100 and 200 μl of Biotin magnetic particles to five 1.5 ml microfuge tubes.
4. Centrifuge and remove the supernatant.
5. Add 1 ml of Avidin-FITC solution to each tubes, vortex and rotate at room temperature for one hour.
6. Filter the suspension through 0.45 μ Acrodisc and read the fluorescence of the filtrate
7. Fluorescence reduction is proportional to the Avidin-FITC bound to the Biotin magnetic particles.

RESULTS:

The binding capacity of Biotin magnetic particles is approximately 4 μg of Avidin-FITC per mg of particles as shown in Fig. 1.

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Fig. 1

