

SpheroTECHNICAL NOTES

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Binding Capacity of Streptavidin Magnetic Particles:

MATERIALS:

1. Streptavidin magnetic particles, 1% w/v, Cat. # SVM-40-5
Lot No. J01, 4.32 μm
2. Biotin-FA solution, Spherotech, Lot No. 021688, 533 nM 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 Biotin-FA solution.
3. Add 50, 100, 150, 200, 300, and 400 μl of Streptavidin
magnetic particles to six 1.5 ml microfuge tubes.
4. Centrifuge and remove the supernatant.
5. Add 1 ml of Biotin-FA solution to each tube, 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 Biotin-FA
bound to the Streptavidin magnetic particles.

RESULTS:

The binding capacity of Streptavidin magnetic particles is approximately 0.335 nmole of Biotin-FA per mg of particles as shown in Fig. 1.

Fig. 1

