Coupling of oligonucleotides to Dynabeads® MyOne™ Carboxylic Acid

Equipment / Materials

Polypropylene tubes
Magnetic separation stand
Roller mixer

Dynabeads® MyOne™ Carboxylic Acid
100 mM MES buffer, pH 4.8 (2-(N-Morpholino)ethanesulfonic acid, Fluka # 69892.)
5'-amine modified oligonucleotide
1.25 M EDC solution (N-(3-Dimethylaminopropyl)-N'-ethylcarbodiimide hydrochloride, Fluka # 03449)
250 mM Tris buffer pH 8 with 0.1 % Tween-20 ("TT Buffer")
10 mM Tris buffer pH 8 with 1 mM EDTA ("TE Buffer)

Method

1. Resuspend the beads by rolling for > 30 minutes.
2. Aspirate beads (10 mg/1.0 ml) and transfer to a polypropylene tube.
3. Collect the beads by magnetic separation and aspirate the supernatant.
4. Wash the beads twice in 100 mM MES buffer (1 ml)
5. Resuspend the beads in 100 mM MES buffer (100 µl)
6. In a separate tube, mix 5'amine modified oligonucleotide (50 nmol) and 1.25M EDC (40 µl) in 100 mM MES to a total volume of 100 µl.
7. Add the oligo/EDC mix to the beads and mix by vortex for 10 seconds.
8. Incubate on a roller mixer at room temperature or 37 °C over night.
9. Wash the beads with TT buffer (3 times, each round incubated >30 minutes) (1 ml).
10. Resuspend the beads in TE buffer to 10 mg/ml or desired concentration.
11. Store the beads at 2-8 °C.