

## Post-Coupling Stability of Oligonucleotide-Coupled Microspheres

Forty-eight amine-C12-modified oligonucleotide probes were coupled to individual carboxylated microsphere sets using our standard oligonucleotide coupling procedure. Coupled microspheres were resuspended in TE, pH 8.0 and stored at 4°C in the dark. At 1, 8, 31 and 98 weeks post-coupling, the stability of the coupled microspheres was assessed by direct hybridization to 25 biotinylated bi-allelic target sequences amplified from characterized genomic DNA samples. To control for loss of signal due to degradation of the biotinylated PCR products, fresh amplicons were generated for each experiment. Net median fluorescent intensity for each probe-coupled microsphere set was determined and used to calculate an allelic ratio for each target. The Net MFI varied between individual experiments and amplifications with a 22% CV across all targets. However, the discriminatory ability of the coupled microspheres was satisfactorily maintained throughout the test period. The %CV ranged from 1.00 to 8.16 (average = 4.20) for the allelic ratios within each target across all four experiments.

Representative results are shown below:

