

## STORAGE BUFFER FOR OLIGONUCLEOTIDE-COUPLED MICROSPHERES

For oligonucleotide-coupled microspheres, we recommend storage in TE buffer, pH 8.0 at 2-8°C in the dark. In a study done by Luminex Biology R & D, TE buffer was found to be superior to MES coupling buffer for storage of oligonucleotide-coupled microspheres.

One nanomole of a Uni-Link-modified, 18 base oligonucleotide probe was coupled to 5 million carboxylated microspheres in duplicate coupling reactions. The coupled microspheres were resuspended to 50,000 microspheres/ $\mu$ L in either 100 mM MES, pH 4.5 coupling buffer or TE buffer, pH 8.0 and stored in the dark at 4°C. The stability of the coupled microspheres under these conditions was functionally assessed at weekly intervals by direct hybridization to the biotinylated complementary oligonucleotide target. Fresh aliquots of the target oligonucleotide were used for each experiment.

On initial testing, the MES-stored microspheres exhibited a 20% higher median fluorescent intensity (MFI) than the TE-stored microspheres. After 15 weeks, the MFI of the MES-stored microspheres had decreased by 51% whereas the MFI of the TE-stored microspheres had only decreased by 23%.

