Guidance on Usage of Cy5™-Strepavidin Conjugate for CodeLink Microarrays

Cy5-Streptavidin (Cy5-SA) is sold as a 1 mg powdered chemical in the bottom of a vial from GE Healthcare. The chemical contains the Cy5-SA conjugate and required buffer. The user must resuspend in 1 mL of water, as described in the array processing protocols for 1-Assay or 16-Assay arrays, to create a Cy5-SA stock solution.

A working solution of Cy5-SA should be created each time the user runs slides to ensure that the solution is fresh, and no degradation of the Cy5 fluorescent signal or of the conjugation has occurred.

The amount of the stock solution used for generation of this working solution differs between 1-Assay and 16-Assay processing.

For each 1-Assay slide, 6.8 uL of the stock solution is used to generate the working solution; therefore about 147 slides total could be assayed with one vial. To account for volume losses in the vial or in pipets, the user should assume 145 slides assayed per vial.

For each 16-Assay chambered slide, 8.8 uL of the stock solution is used to generate the working solution; therefore, about 113 slides total could be assayed with one vial. To account for volume losses in the vial or in the pipets, the user should assume 110 slides assayed per vial. This would correlate to 1,760 wells or individual arrays.

All of these calculations assume the user is completing work from one vial in a timely fashion. Once the chemical in the vial is resuspended in water to form the stock solution, it is absolutely necessary to store at -20C, and it is recommended to use the stock solution within 6 months to avoid losing signal due to conjugate degradation.