



Oligonucleotides are chemically stable and an oligonucleotide stored lyophilized, or in proper buffer at -20 °C, should remain stable for several years. We recommend a general shelf life of one (1) year for all oligonucleotides. Stored correctly, many will remain stable for many years. Each oligonucleotide is unique and has special properties that affect its stability. In case you would like to know a more exact shelf life of your oligonucleotides, we recommend you to perform stability studies, preferably in collaboration with us.

### **Stability studies at SGS DNA**

The purpose of a stability study is to show how the quality of a product varies over time and how factors such as temperature, humidity and light affect the product. The study should result in recommendations for storage and shelf life for the tested product.

The stability test should be performed on at least three batches of a product or on three different oligonucleotide sequences of the same product type. The manufacture, packaging and storage conditions of the test oligonucleotides should be identical to those of the final product.

The stability of the product will be examined with respect to purity/homogeneity by HPLC/UPLC analysis or in some cases by LC-MS analysis. A product is not considered stable if the purity has decreased more than 5 percent units with a 95% confidence interval.

Prior to the start of the study, a stability plan should be established and acceptance criteria should be specified. The stability plan must be accepted by both parties. The study is then performed at SGS DNA according to this plan. The data and the results from the study are summarized in a report.

**If you are interested in performing stability study/studies together with us, please contact us for further information.**