Hydrolytic Stability of Ribose Phosphodiester Bonds within Several Oligonucleotides at High Temperatures Using a Real-Time Monitoring Method for Hydrothermal Reactions

Kunio Kawamura

The monitoring method of hydrothermal reactions in real time was applied to examine the hydrolytic stability of ribose phosphodiester bond under hydrothermal conditions in 1–140 s at 150–200 °C. Kinetic analysis showed that oligo-17 and oligo-11 have different hydrolytic stability.

5′-GGCCGTTT-3′
3′-CCGGCC-5′
(oligo-17)

5′-GGCCGGTTTTT-3′
(oligo-11)