Factors influencing Diasteromer Separations in Oligonucleotide Analysis

The production of oligonucleotides with high yields via automated stepwise synthetic methods is well established. This process, while very efficient with yields greater than 90% per step, can still result in total yields that are lower than desirable as oligonucleotide length increases. Even for an oligonucleotide of modest sequence length (21 mer), a coupling efficiency of 99% would generate a product with a maximum purity of 43% at the process step needed to remove any unreacted reagents. This results in a product that can have a significant amount of impurities that can impact drug product safety and efficacy. The WFM-A is a fraction collection solution that provides an analytical scale solution for the isolation of oligonucleotides from process-related impurities that can impact drug product safety and efficacy. The WFM-A is a fraction collection solution that provides an analytical scale solution for the isolation of oligonucleotides from process-related impurities that can impact drug product safety and efficacy.

THE SOLUTION

The Waters Fraction Manager is a fraction collector for UPLC® systems that enables fraction collection in a cost-effective manner. The WFM-A is designed for straightforward integration into an existing UPLC® instrument stack and can be controlled using the Waters Empower® Chromatography Data System software. The WFM-A provides a versatile and cost-effective solution for the isolation of oligonucleotides from process-related impurities.

The Waters Fraction Manager – Analytical (WFM-A) System is a fraction collector for UPLC® systems that enables fraction collection in a cost-effective manner. The WFM-A is designed for straightforward integration into an existing UPLC® instrument stack and can be controlled using the Waters Empower® Chromatography Data System software. The WFM-A provides a versatile and cost-effective solution for the isolation of oligonucleotides from process-related impurities.

Lab-Scale Oligonucleotide Purification Using Waters Fraction Manager — Analytical System

Background

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