

APPLICATIONS

Chiral Separation of Propafenone with a Lux[®] i-Amylose-3 Chiral Stationary Phase by HPLC under General Polar Organic Mobile Phase Conditions

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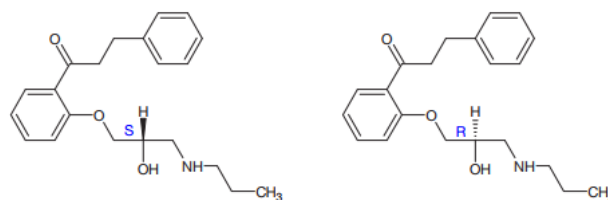
Overview

In this application note, a general chiral screening mobile phase conditions was used in conjunction with the Lux i-Amylose-3 immobilized polysaccharide-based chiral stationary phase, to separate a racemic mixture of Propafenone. Propafenone is an anti-arrhythmic medication that contains one stereocenter. The therapeutic use of propafenone has increased interest in the development of an efficient and fast HPLC method that could resolve enantiomeric compounds. A general screening polar organic mobile phase conditions of Methanol with 0.1 % Diethylamine was used. An Agilent[®] 1100 (Santa Clara, CA) HPLC system, with an injection volume of 10 μ L and a flow rate of 1.0 mL/min was used for this example. The Lux i-Amylose-3 chiral selector is a complementary but distinct chiral selectivity in comparison to i-Amylose-1 and i-Cellulose-5. It combines the 5-position methyl group of the i-Amylose-3 chiral selector with electron-withdrawing potential of the i-Cellulose-5 3-position chlorine group. Combined with the strong solvent flexibility of the immobilization process the Lux i-Amylose-3 column's broad enantioselectivity promotes greater chiral separation success.

LC Conditions

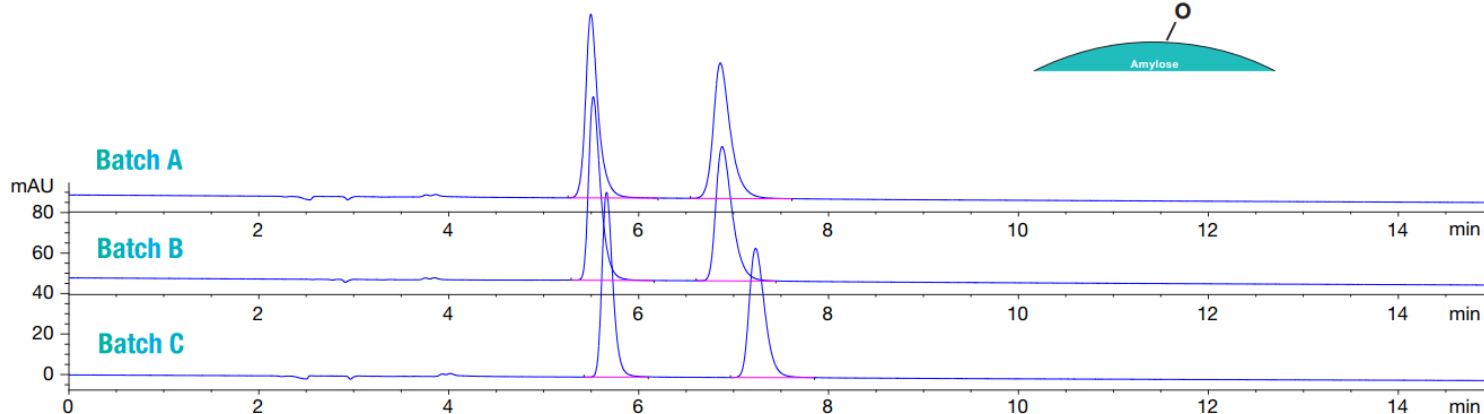
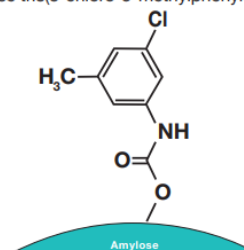
Column: Lux 5 μ m i-Amylose-3
Dimensions: 250 x 4.6 mm
Part No.: 00G-4779-E0
Recommended Guard: SecurityGuard[™]
Guard Holder Part No.: KJ0-4282
Guard Cartridge Part No.: AJ0-8650
Mobile Phase: Methanol with 0.1 % Diethylamine
Flow Rate: 1.0 mL/min
Injection Volume: 10 μ L (2 mg/mL)
Detector: UV-Vis @ 254 nm
Sample: 1. Propafenone
2. Propafenone

Enantiomers of Propafenone



Lux i-Amylose-3

Amylose tris(3-chloro-5-methylphenylcarbamate)



APPLICATIONS

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CAUTION: this patent only applies to the analytical-sized guard cartridge holder, and does not apply to SemiPrep, PREP or ULTRA holders, or to any cartridges.

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