

Enantioselective Analysis of Valacyclovir using a Lux[®] Cellulose-1 Chiral Column

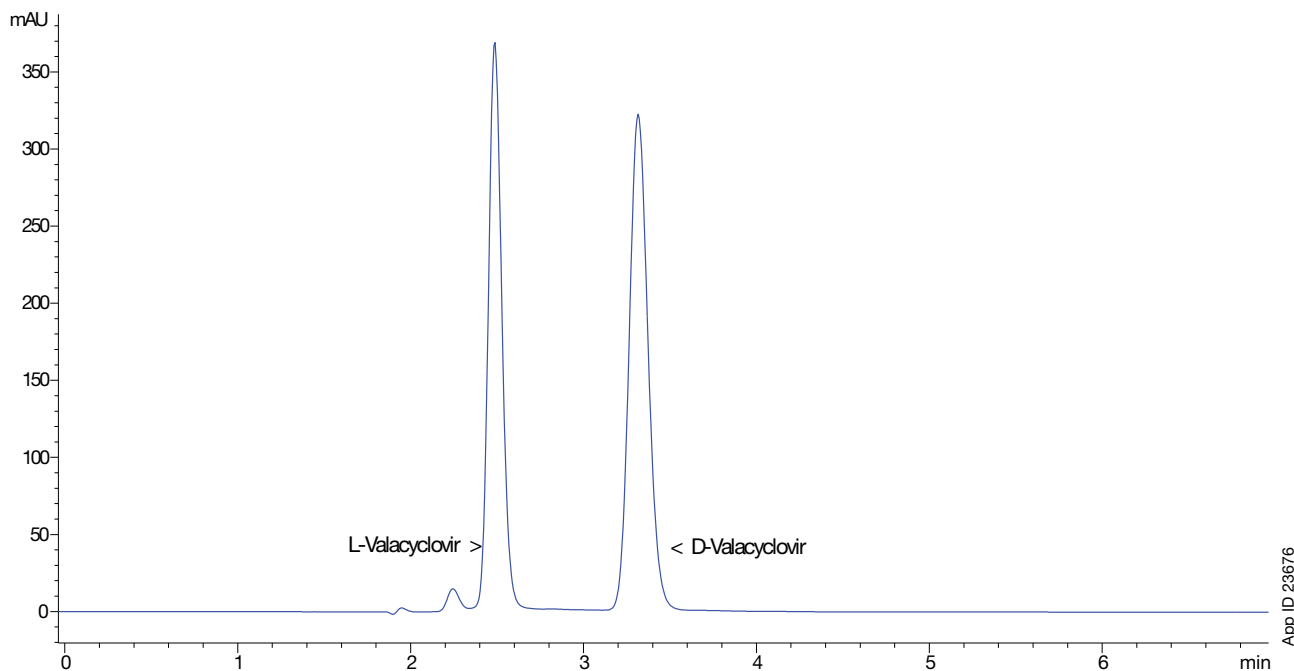
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Overview

Valacyclovir is an antiviral medication used for the treatment of herpes zoster (shingles), herpes simplex genitalis (genital herpes), and herpes labialis (cold sores). Marketed as Valtrex[®] and Zelitrex[®], this medication works as a DNA polymerase inhibitor, thereby reducing DNA synthesis and viral replication. Because of this medication's widespread use, it is important to have an enantioselective form of analysis to aid in the detection of dosage and impurities. A simple and robust method was developed for the identification of each Valacyclovir enantiomer using a Lux Cellulose-1 chiral column. The cellulose-1 chiral selector is able to efficiently separate these structurally similar compounds while maintaining a rapid analysis time.

LC/UV Conditions

Column: Lux 5 μ m Cellulose-1
Dimensions: 150 x 4.6 mm
Part No.: 00F-4459-E0
Guard Cartridge: AJ0-8403
Guard Holder: KJ0-4282
Mobile Phase: Methanol/Isopropanol/Diethylamine (90:10:0.1)
Flow Rate: 1.0 mL/min
Injection Volume: 2 μ L
Temperature: Ambient
Detection: UV @ 254 nm
Sample: 1. L-Valacyclovir
2. D-Valacyclovir



APPLICATION

Lux® Cellulose-1 Ordering Information

3 µm Minibore, MidBore™, and Analytical Columns (mm)								SecurityGuard™ Cartridges (mm)	
Phases	50 x 2.0	150 x 2.0	150 x 3.0	50 x 4.6	100 x 4.6	150 x 4.6	250 x 4.6	4 x 2.0*	4 x 3.0*
Cellulose-1	00B-4458-B0	00F-4458-B0	00F-4458-Y0	00B-4458-E0	00D-4458-E0	00F-4458-E0	00G-4458-E0	/10pk AJ0-8402	/10pk AJ0-8403
								for ID:	2.0–3.0 mm 3.2–8.0 mm

5 µm Minibore and Analytical Columns (mm)						SecurityGuard™ Cartridges (mm)	
Phases	50 x 2.0	50 x 4.6	100 x 4.6	150 x 4.6	250 x 4.6	4 x 2.0*	4 x 3.0*
Cellulose-1	00B-4459-B0	00B-4459-E0	00D-4459-E0	00F-4459-E0	00G-4459-E0	/10pk AJ0-8402	/10pk AJ0-8403
						for ID:	2.0–3.0 mm 3.2–8.0 mm

5 µm Semi-Prep Columns (mm)		SecurityGuard™ Cartridges (mm)	
Phases	150 x 10.0	250 x 10.0	10 x 10.0†
Cellulose-1†	00F-4459-N0	00G-4459-N0	/3pk AJ0-8404
		for ID:	9–16 mm

Bulk Media		
Phases	100 g	1 kg
10 µm		
Cellulose-1	04G-4501	04K-4501
20 µm		
Cellulose-1	04G-4473	04K-4473

†Inquire for Lux 10 µm Cellulose-1 columns.

5 µm Axia™ Packed Preparative Columns (mm)					SecurityGuard™ Cartridges (mm)	
Phases	150 x 21.2	250 x 21.2	250 x 30	250 x 50	15 x 21.2**	15 x 30.0*
Cellulose-1†	00F-4459-P0-AX	00G-4459-P0-AX	00G-4459-U0-AX	00G-4459-V0-AX	/ea AJ0-8405	/ea AJ0-8406
					for ID:	18–29 mm 30–49 mm

*SecurityGuard Analytical Cartridges require holder, Part No.: KJ0-4282
†SemiPrep SecurityGuard™ Cartridges require holder, Part No.: AJ0-9281

**HPLC PREP SecurityGuard Cartridges require holder, Part No.: AJ0-8223
SFC PREP SecurityGuard Cartridges require holder, Part No.: AJ0-8617
•HPLC PREP SecurityGuard Cartridges require holder, Part No.: AJ0-8277
SFC PREP SecurityGuard Cartridges require holder, Part No.: AJ0-8618

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