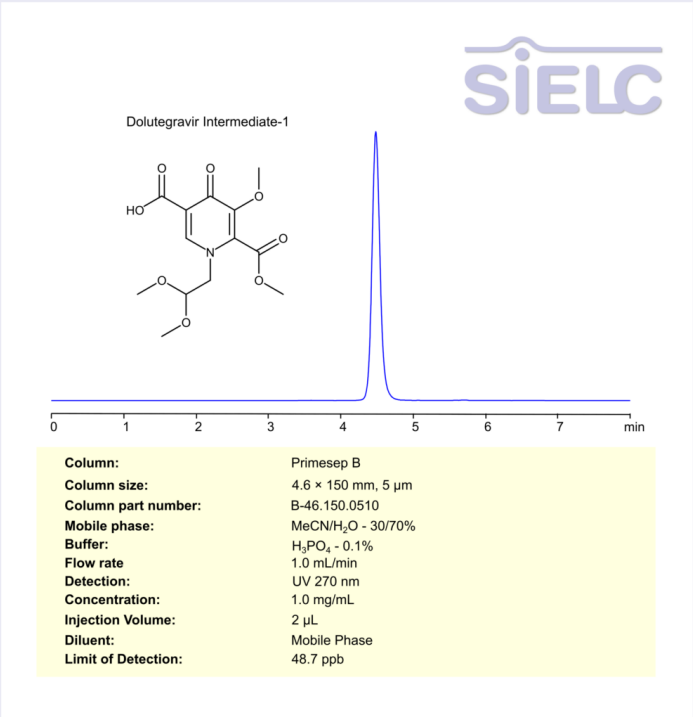
HPLC Method for Analysis of Dolutegravir Intermediate-1 on Primesep B Column



Dolutegravir Intermediate-1 is a key chemical precursor used in the synthesis of Dolutegravir, an antiretroviral drug for the treatment of HIV infection. This intermediate plays a crucial role in building the core structure of Dolutegravir, contributing to its integrase strand transfer inhibitor (INSTI) activity, which prevents the virus from integrating its genetic material into the host cell's DNA. Its synthesis requires precise chemical processes to ensure high purity and yield, as it directly impacts the efficacy and safety of the final pharmaceutical product.

Dolutegravir Intermediate-1 can be retained, and analyzed using a Primesep B mixed-mode stationary phase column. The analysis utilizes an isocratic method with a simple mobile phase consisting of water, acetonitrile (MeCN), and phosphoric acid as a buffer. Detection is carried out using UV.

Method Parameters

Column	Primesep B, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeCN/H2O – 30/70%
Buffer	H3PO4 – 0.1%
Flow Rate	1 mL/min
Detection	UV 270 nm

Quelle: https://sielc.com/hplc-method-for-analysis-dolutegravir-intermediate-1

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