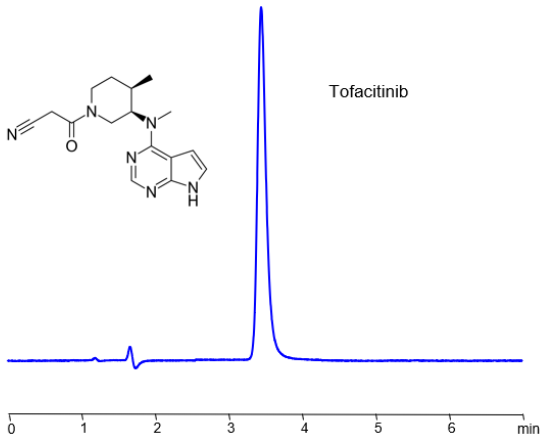
HPLC Method for Determination of Tofacitinib on Newcrom R1 Column



Column:	Newcrom R1
Column size:	2.1 × 100 mm, 3 µm
Column part number:	NR1-21.100.0310
Mobile phase:	MeCN/H_2O – 15/85%
Buffer:	H_2SO_4 – 0.2%
Flow rate:	0.2 mL/min
UV detection:	290 nm

High Performance Liquid Chromatography (HPLC) Method for Analysis of Tofacitinib

Tofacitinb , known under its brand name Xeljanz , is a medication with the medical formula C16H20N6O . It is commonly used to treat rheumatoid arthritis, psoriatic arthritis, and ulcerative colitis. Tofacitinib can be retained and analyzed on a Newcrom R1 reverse-phase column using a simple isocratic analytical method with a mobile phase consisting of Acetonitrile (MeCN), water, and Sulfuric acid as the ionic modifier. This analysis method can be UV detected at 290 nm with high resolution and peak symmetry.

Tofacitinib can be retained and analyzed using the Newcrom R1 stationary phase column. The analysis utilizes an isocratic method with a simple mobile phase consisting of water and acetonitrile (MeCN) with a sulfuric acid buffer. Detection is performed using UV.

Method Parameters

Column	Newcrom R1, 2.1 x 100 mm, 3 µm, 100 Å, dual ended
Mobile Phase	MeCN – 15%
Buffer	H2SO4 – 0.2%
Flow Rate	0.2 mL/min
Detection	UV 290 nm
Limit of Detection	0.02 ppm

Quelle: https://sielc.com/hplc-method-for-determination-of-tofacitinib

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