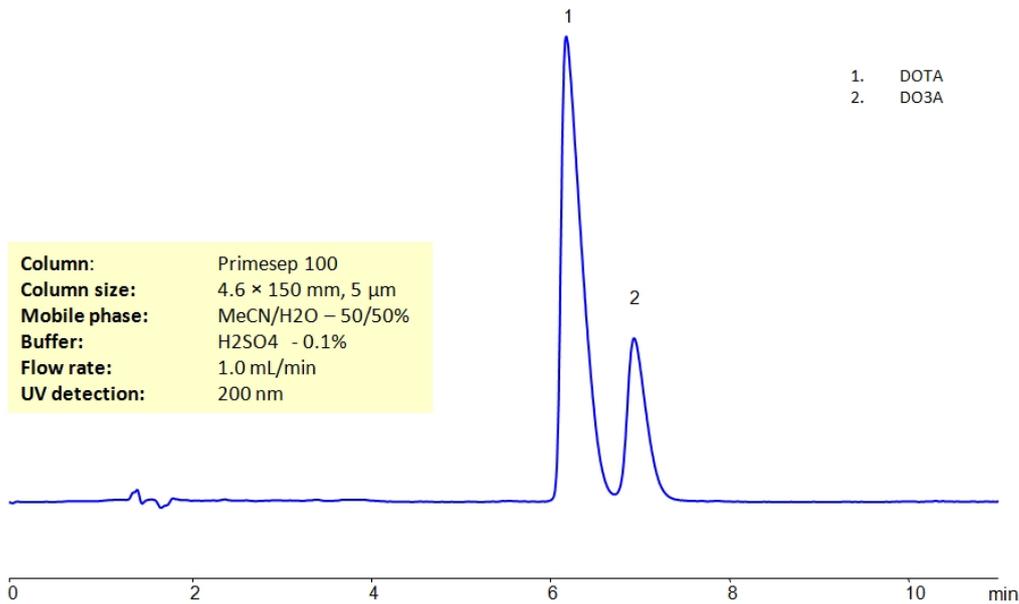


HPLC Separation of DOTA and DO3A on Primesep 100 Column



High Performance Liquid Chromatography (HPLC) Method for Analysis of DO3 Å , Tetraxetan (DOTA)

DOTA is a macrocyclic chelating agent with the chemical formula C₁₆H₂₈N₄O₈. DOTA is actually an acronym for 1,4,7,10-tetraazacyclododecane-1,4,7,10-tetraacetic acid. It is used to bind metal ions, partially due to its stability. It is often employed in biomedical applications including but not limited to MRI contrast agents and targeted cancer therapy.

DO3 Å is a derivative of DOTA with the chemical formula C₁₄H₂₃N₄O₆Na₃.

DO3 Å , Tetraxetan (DOTA) can be retained and analyzed using the Primesep 100 stationary phase column. The analysis utilizes an isocratic method with a simple mobile phase consisting of water and acetonitrile (MeCN) with an ammonium formate buffer. Detection is performed using UV.

Method Parameters

Column	Primesep 100, 4.6 x 150 mm, 5 µm, 100 Å, dual ended
Mobile Phase	MeCN/H ₂ O – 50/50%
Buffer	H ₂ SO ₄ – 0.1%
Flow Rate	1.0 mL/min
Detection	UV, 200 nm

Quelle: <https://sielc.com/hplc-separation-of-dota-and-do3a>