



PHENOXYMETHYLPENICILLIN IMPURITIES

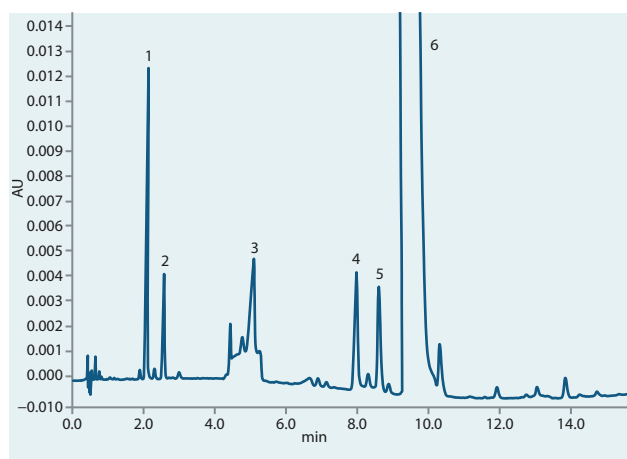
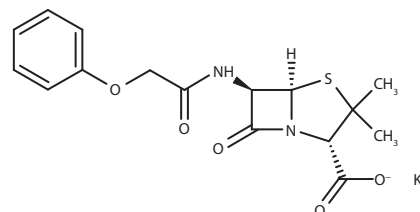
INTRODUCTION

This application shows phenoxymethylpenicillin potassium impurities analysis in accordance with Ph. Eur. monograph.

Substance: Phenoxymethylpenicillin potassium salt,
CAS number 132-98-9

Synonym: Penicillin V potassium

Formula: (2S,5R,6R)-3,3-Dimethyl-7-oxo-6-[(phenoxyacetyl)amino]-4-thia-1-azabicyclo[3.2.0]heptane-2-carboxylic acid, monopotassium salt



Standard mixture on ARION® column

Column	ARION® Plus C18, 3 µm		
Dimensions	150 mm x 4.6 mm		
Part number	ARI-5720-IK46		
Mobile phase	(A) phosphate buffer solution pH 3.4: methanol:water (10:30:60 V/V/V) (B) phosphate buffer solution pH 3.4: methanol:water (5:60:35 V/V/V)		
Gradient elution	Time	A	B
	0–2	85	15
	2–5	85–70	15–30
	5–17	70–0	30–100
	17–22	0	100
Flow rate	1.5 ml/min		
Temperature	50 °C		
Detection	DAD @254 nm		
Analytes	1. Impurity B 2. Impurity D (4-hydroxyphenoxy-methylpenicillin) 3. Impurity E (sum of isomers) 4. Impurity F1 (epimer) 5. Impurity F2 (epimer) 6. Phenoxymethylpenicillin		