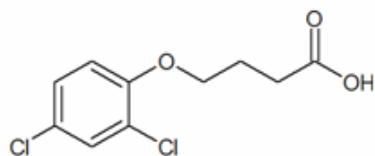


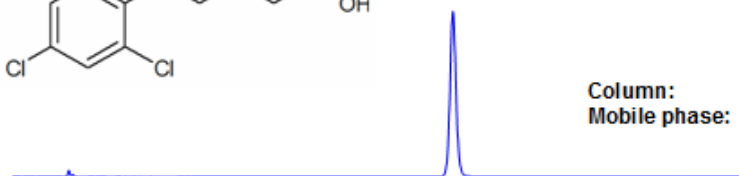
# Controlling Retention of 2,4-DB on Mixed-Mode HPLC Columns

<https://sielc.com/Application-Controlling-Retention-of-2-4-DB-on-Mixed-Mode-HPLC-Columns>

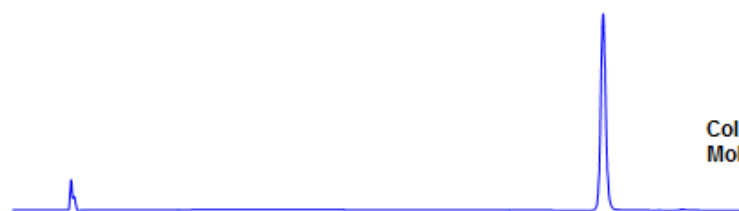
## Chromatogram



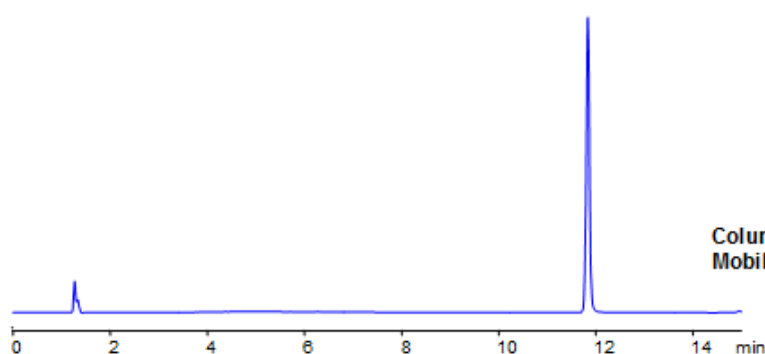
**Size:** 2.1 x 150 mm  
**Flow:** 0.4 mL/min  
**Detection:** UV 270 nm



**Column:** Obelisc R  
**Mobile phase:** MeCN gradient 25% to 70% in 15 min,  
AmFm pH 3.0 gradient from 30 mM to 60 mM



**Column:** Obelisc R  
**Mobile phase:** MeCN gradient 10% to 70% in 15 min,  
AmFm pH 3.0 gradient from 20 mM to 60 mM



**Column:** Primesep 100  
**Mobile phase:** MeCN gradient 10% to 70% in 15 min,  
AmFm pH 3.0 gradient from 20 mM to 60 mM

## Description

4-(2,4-dichlorophenoxy)butyric acid or 2,4-DB is a herbicides used in alfalfa, peanuts, and soybean production. 2,4-DB selectively controls broadleaf weeds inhibiting growth at the root and stem tips. It is considered slightly toxic, as is its metabolite 2,4-D. The EURL (European Union Reference Laboratory) included 2,4-DB in an analysis of acidic pesticides using QuEChERS methodology. Primesep 100 and Obelisc R were used to retain and separate 2,4-DB from impurities. Method is LC/MS compatible and developed to be used for many pesticides.

## Method Parameters

<b>Mobile Phase</b>	Gradient MeCN – 10-70%, 15 min
<b>Buffer</b>	Gradient AmAc pH 3.0- 20-60 mM, 15 min
<b>Flow Rate</b>	0.4 ml/min
<b>Detection</b>	UV, 270 nm
<b>Class of Compounds</b>	Insecticide, Herbicide, Fungicide, Hydrophobic, Ionizable
<b>Analyzing Compounds</b>	2,4-DB

## HPLC Column Used

**Primesep 100, 2.1×150 mm, 5 µm, 100A**

[Order this column at hplc-shop.de](http://hplc-shop.de) →