Waters™

Applikationsbericht

# Analysis of Food Sugars in Bran with Raisins Cereal Using ACQUITY UPLC BEH Amide Columns

Waters Corporation

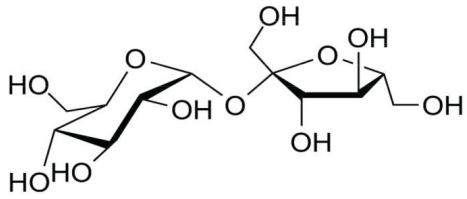
This is an Application Brief and does not contain a detailed Experimental section.

## Abstract

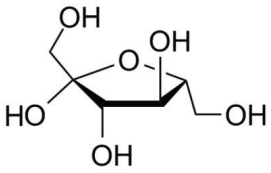
This application brief highlights the analysis of food sugars in bran with raisins cereal using ACQUITY UPLC BEH Amide Columns.

## Introduction

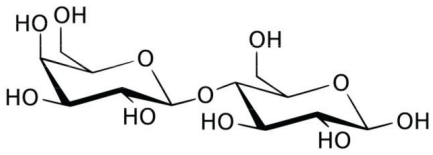
## Structures



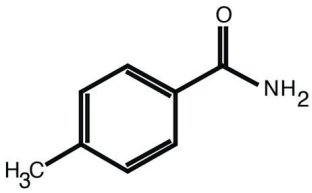

Sucrose



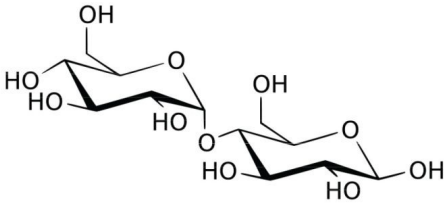

Fructose



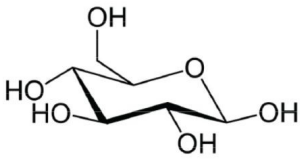

Lactose




p-Toluamide
(unretained compound)




Maltose




Glucose

# Experimental

## Chromatographic Conditions

| | |
|---|---|
| Column: | ACQUITY UPLC BEH Amide 2.1 x 150 mm, 1.7 µm |
| Part Number: | 186003462 |
| Mobile Phase A: | 80/20 MeCN/$H_2O$ with 0.2% triethylamine [TEA] |

| | |
|---|---|
| Mobile Phase B: | 30/70 MeCN/$H_2O$ with 0.2% triethylamine [TEA] |
| Flow Rate: | 0.29 mL/min |
| Flow Profile: | 90% A/10% B (75% MeCN with 0.2% TEA) |
| Injection Volume: | 2.0 µL (PLNO) |
| Sample Concentration: | Standards at 1 mg/mL each, cereal extracted at 8 mg/mL |
| Sample Diluent: | 50/50 MeCN/$H_2O$ |
| Column Temperature: | 35 °C |
| Strong Needle Wash: | 20/80 MeCN/$H_2O$ (800 µL) |
| Weak Needle Wash: | 75/25 MeCN/$H_2O$ (500 µL) |
| Seal Wash: | 50/50 MeCN/$H_2O$ |
| Instrument: | Waters ACQUITY UPLC with ELSD |

## ELSD Conditions

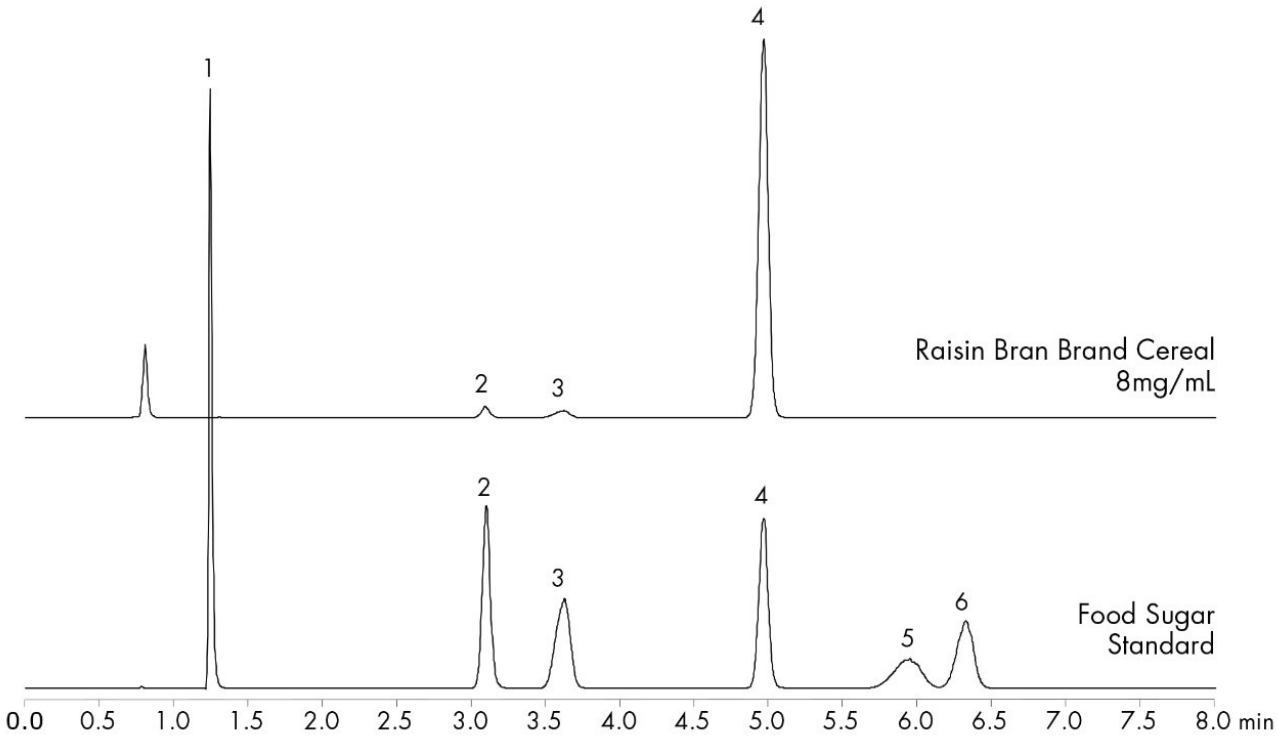
| | |
|---|---|
| Gain: | 200 |
| Pressure: | 40 psi |
| Drift Tube Temperature: | 40 °C |
| Nebulizer: | Cooling |

| | |
|---|---|
| Data Rate: | 10 pps |
| Filter Time Constant: | Normal |

## Results and Discussion

The compounds analysed in this study are:

1. p-Toluamide
2. Fructose
3. Glucose
4. Sucrose
5. Maltose
6. Lactose




## Featured Products

ACQUITY UPLC ELS Detector <https://www.waters.com/514219>

WA60120, October 2009