

# Reveleris® X2 Flash System

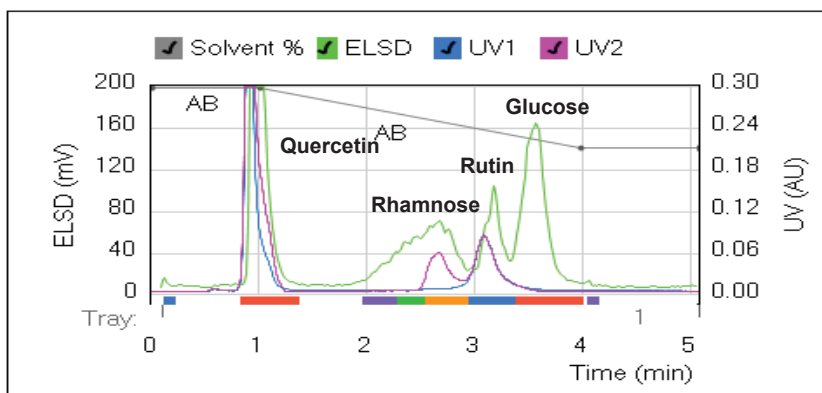
Purification of Conjugated Quercetin with Rutinose Using the Reveleris® X2 Flash System is Fast and Productive

## Introduction

Flavanol glycoside Rutin has been used in dietary supplements as Vitamin P for therapeutic treatments.<sup>1</sup> Besides its antioxidant property, this bioflavonoid works with vitamin C and helps in reducing pain and intraocular pressure. It has been synthesized from the conjugation of carbohydrates such as rhamnose and glucose with the flavonoid quercetin.

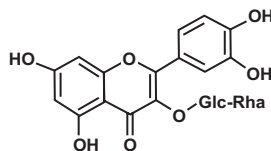
### Flash Chromatography Conditions:

**Cartridge:** Reveleris® amino 12g  
**Flow Rate:** 36mL/min  
**Equilibration:** 10.0 min  
**Run Length:** 9.0 min  
**UV1 Wavelength:** 265nm  
**UV2 Wavelength:** 220nm  
**Solvent A:** Water  
**Solvent B:** Acetonitrile with 0.5% TFA



### Gradient Table

Step	Time (min.)	%B
1	0.0	99
2	1.0	99
3	3.0	70
4	5.0	70



Rutin

## Conclusion

Using the Reveleris® amino cartridge and the ELSD detector of the ReveALX™ technology, sugar impurities from rutin can be isolated and purified. With other lower capacity cartridges, closely eluting peaks may co-elute resulting in poor recovery during isolation. As amino phase media is ideal for separating sugar compounds, all the components in the reaction mixture are separated using trifluoroacetic acid as the solvent modifier with speed.

## References

1. Medicinal natural products; a biosynthetic approach, 3rd edition; Dewick, P.; John Wiley & Sons, Inc., Hoboken, New Jersey, 2009.

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11/2013 M360a

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