

# Reveleris® X2 Flash System

## Isolation of Bioactive Diterpenoids Using RevealX™ Technology in Tu-Jing-Pi Extract

### Introduction

Root bark of pseudolarix kaempferi, well known as Tu-Jing-Pi, has been used in the treatment of skin diseases caused by microbial infection.<sup>1</sup> It contains diterpenoids, such as pseudolaric acid (A-C), that have a variety of biological activities.

#### Extraction Conditions:

**Extract type:** Pulverized  
**Weight:** 2g  
**Extraction Solvent:** Ethanol  
**Solvent Volume:** 20mL  
**Ultra-sonication:** 30 min

#### Flash Chromatography Conditions:

**Cartridge:** Reveleris® silica 4g  
**Solvent A:** Hexane  
**Solvent B:** Ethyl acetate  
**Flow Rate:** 18mL/min  
**UV1 Wavelength:** 254nm  
**UV2 Wavelength:** 280nm  
**Cartridge Equilibration:** 5.0 min  
**Injection Type:** Liquid

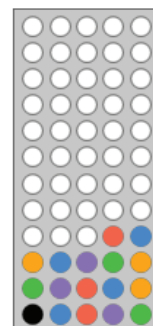
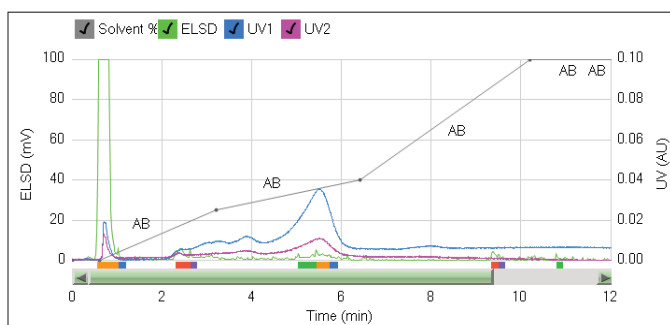


Figure 1: The chromatogram shows the purification of Tu-Jing-Pi extract using the Reveleris® X2 flash chromatography system.

Gradient Table

| Step | Time (min.) | %B  |
|------|-------------|-----|
| 1    | 0.0         | 0   |
| 2    | 0.6         | 0   |
| 3    | 2.6         | 25  |
| 4    | 3.2         | 40  |
| 5    | 3.8         | 100 |
| 6    | 1.8         | 100 |

### Conclusion

The Reveleris® X2 flash chromatography system shows the benefits of RevealX™ technology in having multiple detection capabilities and integrated fraction collection for productive purification. The ELSD signal shows the elution of non-polar compounds, while UV detects compounds at low levels.

### References

1. Qiao, C.; Han, Q.; Song, J.; Mo, S.; Tai, C.; Xu, H.; HPLC analysis of Bioactive diterpenoids from the root bark of pseudolarix kaempferi; J. of Food and Drug Analysis, 14 (4), (2006), pp. 353-356.

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