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## APPLICATION NOTE

E181VDN-003

Isolation of Xanthone V1a and Gerontoxanthone I from an Extract Fraction of  
*Hypericum irazuense* Kuntze

### ***Abstract***

### ***Keywords***

- Natural products
- Xanthonoids
- Xanthone V1a
- Gerontoxanthone I
- *Hypericum irazuense* Kuntze

## Compound information

| Classification | Compound name   |
|----------------|---|
| Xanthonoids    | Xanthone V1a = 1,3,5,6-Tetrahydroxy-2,4-bis(3-methyl-2-buten-1-yl)-xanthen-9-on<br>Gerontoxanthone I = 4-(1,1-Dimethyl-2-propen-1-yl)-1,3,5,6-tetrahydroxy-2-(3-methyl-2-buten-1-yl)-xanthen-9-on |

For the structures please refer to pages 42 and 45 of the thesis (see references).

## Chromatographic conditions

|  |   |
|--|---|
| Column                                 | VDSpher® 100 C18-E  |
| Particle Size, Length × inner diameter | 10 µm, 250 × 25 mm  |
| Order number                           | N2553E181VDN  |
| Separation mode descriptions           | preparative, reversed phase   |
| Mobile Phase                           | A: Acetonitrile<br>B: Water   |
| Elution conditions                     | Gradient<br>0-10 min: 40% B<br>10-18 min: 40% to 0% B<br>18-40 min: 0% B  |
| Flow rate                              | 20 ml/min   |
| Injection                              | 0.2-1.0 ml  |
| Column temperature                     | ambient   |
| HPLC system                            | Varian R PrepStar Model SD-1, Dynamax R Solvent Delivery System Model SD-1<br>Detection: Dynamax R Absorbance Detector Model UV-1, wavelength: 254 nm   |
| Sample and sample preparation          | The plant extract was fractionated via preparative silica chromatography. 15 fractions were obtained. Fraction 11 was the sample used in this application. The fraction was further purified by SPE and the resulting product was dissolved in Methanol (c = 40 mg/ml).<br>For more details please refer to the thesis (see references) |

## **Chromatograms**

The sample was separated into four fractions. The two most interesting fractions with the numbers 2 and 3 were analysed via NMR and LC-MS. Fraction 2 consisted of Xanthon V1a and fraction 3 contained Gerontoxanthon I.

## **Origin**

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## **References**

„Phytochemische Untersuchung von *Hypericum irazuense* Kuntze und *Clusia valerioi* Standley (Clusiaceae)“

Marianne Eberhardt  
Diplomarbeit (Diploma thesis), 2009  
Karl-Franzens-Universität Graz (University of Graz), Austria

Year of application: 2009

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