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APPLICATION NOTE

E181VDN-002

**Isolation of Isocudranixanthone B, Xanthone V1 and Gerontoxanthone I
from an Extract Fraction of *Hypericum irazuense* Kuntze**

Abstract

Keywords

- Natural products
- Xanthonoids
- Isocudranixanthone B
- Xanthone V1
- Gerontoxanthone I
- *Hypericum irazuense* Kuntze

Compound information

Classification	Compound name
Xanthonoids	Isocudranixanthone B = 4-(1,1-Dimethyl-2-propen-1-yl)-1,5,6-trihydroxy-3-methoxy-xanthen-9-on
	Xanthone V1 = 5,9,10-Trihydroxy-2,2-dimethyl-12-(3-methyl-2-buten-1-yl)-pyrano[3,2-b]xanthen-9-on
	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 35, 38 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 B: Water
Elution conditions	Gradient 0-10 min: 25% B 10-20 min: 25% to 15% B 20-25 min: 20% to 0% B 25-50 min: 0% B
Flow rate	20 ml/min
Injection	0.3-0.6 ml
Column temperature	ambient
HPLC system	Varian R PrepStar Model SD-1, Dynamax R Solvent Delivery System Model SD-1 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 10 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). For more details please refer to the thesis (see references)

Chromatograms

The sample was separated into seven fractions. The two most interesting fractions with the numbers 3 and 6 were analysed via NMR and LC-MS. Fraction 3 consisted of Isocudraniaxanthon B and fraction 6 contained Xanthon V1 and Gerontoxanthon I in a ratio of 4:3.

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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