

Supplementary data

Comparative assessment of lignan profiling and biological activities of *Schisandra henryi* leaf and in vitro PlantForm bioreactor grown culture extracts

Karolina Jaferník ¹, Paweł Kubica ¹, Michał Dziurka ², Łukasz Kulinowski ³, Izabela Korona-Główniak ⁴, Hosam O. Elansary ⁵, Piotr Waligórski ², Krystyna Skalicka-Woźniak ³ and Agnieszka Szopa ^{1,*}

¹ Department of Pharmaceutical Botany, Medical College, Jagiellonian University, Medyczna 9 str, 30-688 Kraków, Poland; karolina.jaferník@doctoral.uj.edu.pl (K.J.), p.kubica@uj.edu.pl (P.K.), a.szopa@uj.edu.pl (A.S.)

² Polish Academy of Sciences, The Franciszek Górski Institute of Plant Physiology, Niezapominajek 21 str, 30-239 Kraków, Poland; michał.dziurka@gmail.com (M.D.) p.waligorski@ifr-pan.edu.pl (P.W.)

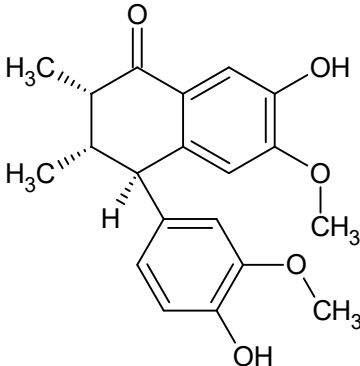
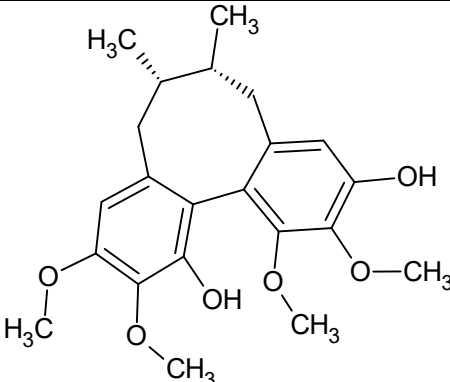
³ Department of Natural Products Chemistry, Medical University of Lublin, Chodźki 1 str, 20-093 Lublin, Poland; lukasz.kulinowski@umlub.pl (Ł.K), kskalicka@pharmacognosy.org (K.S.-W.)

⁴ Department of Pharmaceutical Microbiology, Medical University of Lublin, 1 Chodźki str., 20-093 Lublin, Poland; iza.główniak@umlub.pl (IKG)

⁵ Department of Plant Production, College of Food & Agriculture Sciences, King Saud University, P.O. Box 2460 str, Riyadh 11451, Saudi Arabia; helansary@ksu.edu.sa (H.O.E.)

* Correspondence: a.szopa@uj.edu.pl (A.S.)

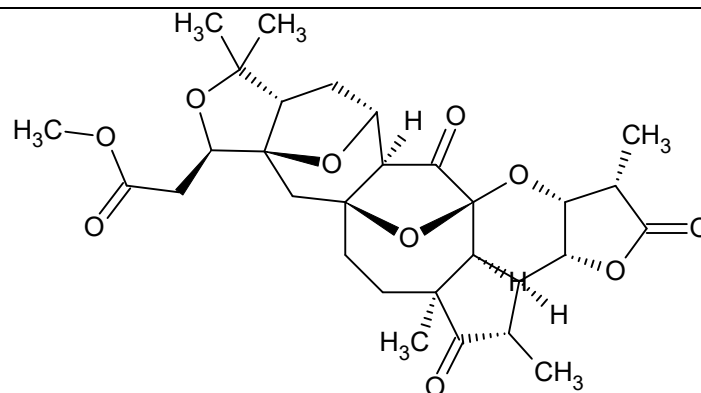
Table S1. Chemical structures of detected lignans in extracts in biomass of *S. henryi*

Compound	Chemical structure	Transition	Acquisition channel
Wulignan A1		343.3 -> 117.0	MRM
Rubrisandrin A		369.3 -> 351.1	MRM

Rubriflorin A

557.4 -> 173.0

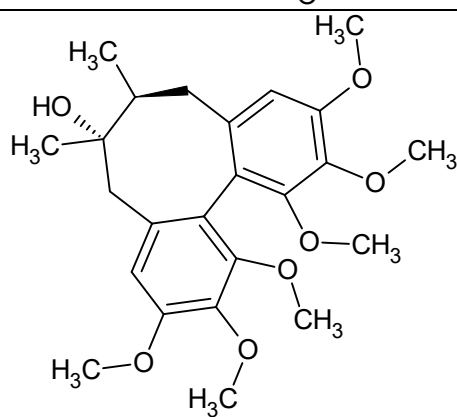
MRM



Schisandrin

415.3 -> 359.2

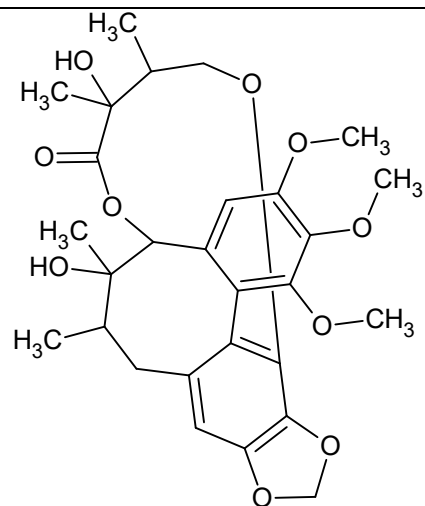
MRM



Gomisin D

401.3 -> 168.0

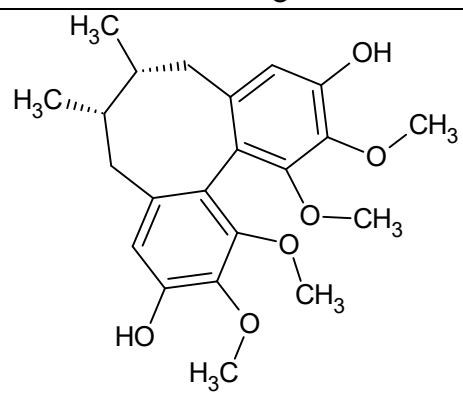
MRM



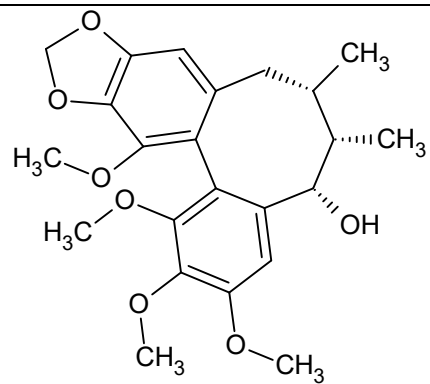
Gomisin J

389.3 -> 117.0

MRM



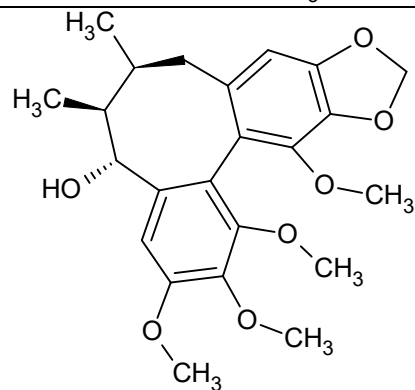
Epigomisin O



399.3 -> 368.2

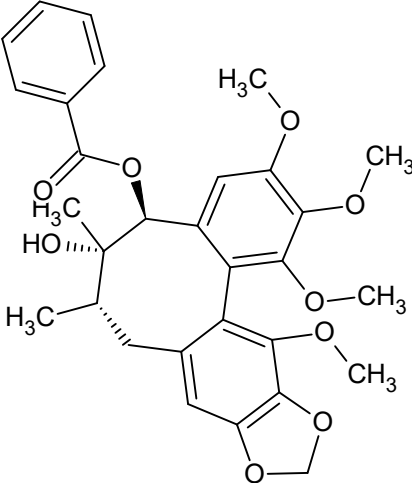
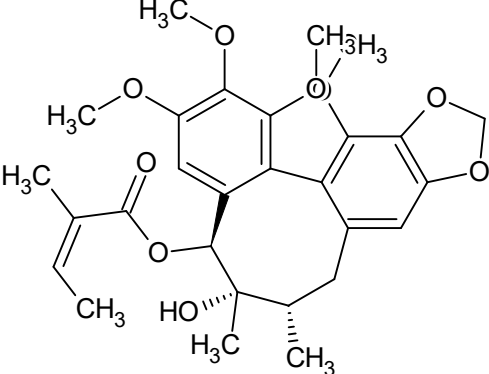
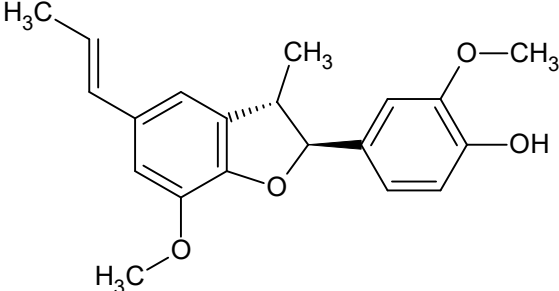
MRM

Gomisin O



325.2 -> 152.0

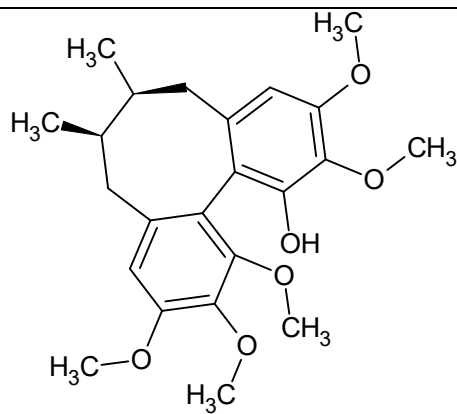
MRM

Schisantherin A		415.3 → 371.1	MRM
Schisantherin B		415.3 → 371.1	MRM
Licarin A		327.3 → 105.1	MRM

Schisanhenol

403.3 -> 231.0

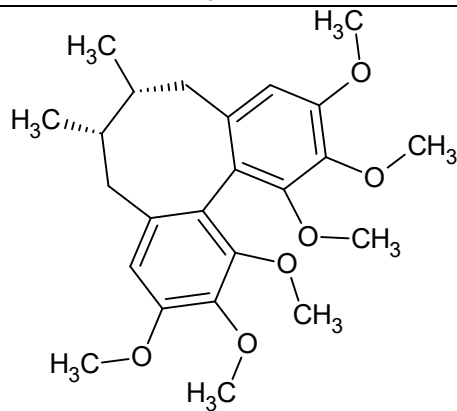
MRM



Deoxyschisandrin

417.3 -> 316.2

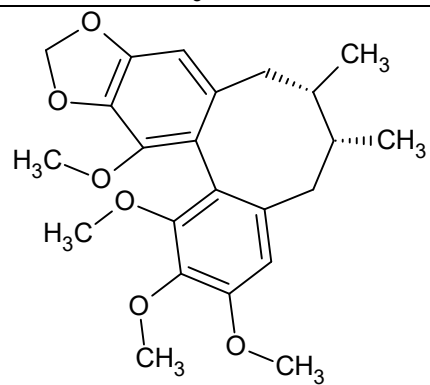
MRM



Gomisin N

401.3 -> 168.0

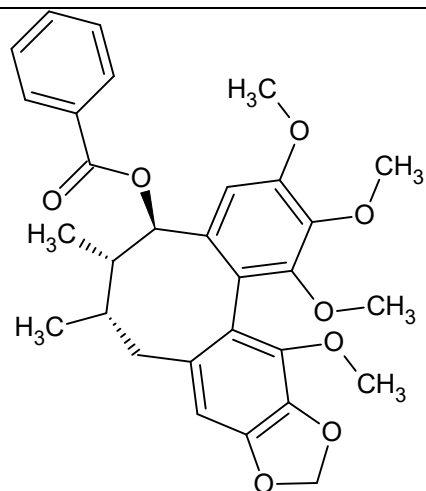
MRM



6-O-benzylgomisin O

399.3 -> 368.2

MRM



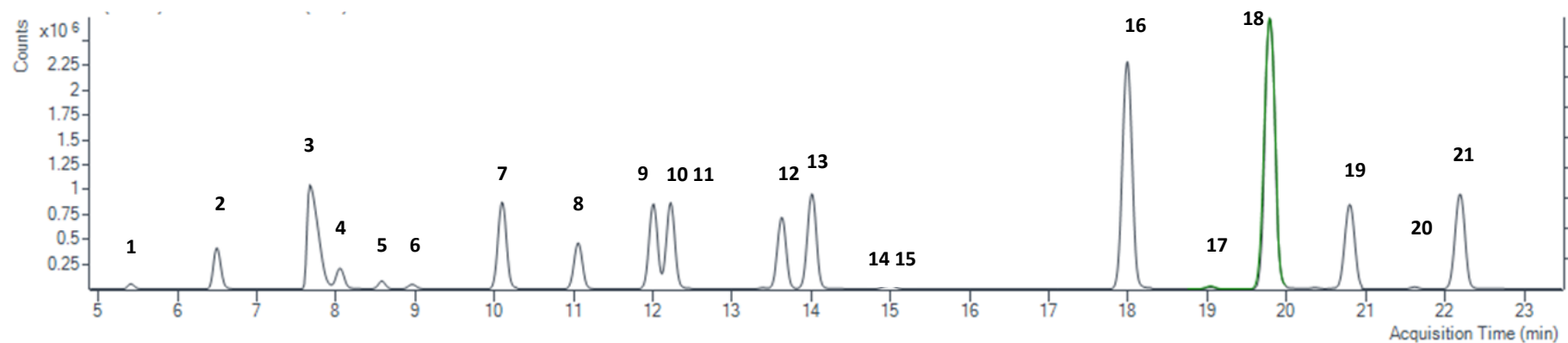


Figure S1. Exemplary TIC (total ion current) chromatogram of acquired MRM (multiple reaction monitoring) of lignan authentic standard mixture: 1 - wulignan A1; 2 - rubrisandrin A; 3 - rubriflorin A; 4 - schisandrin; 5 - gomisin D; 6 - gomisin J; 7- gomisin A; 8 - gomisin G; 9 - licarin B; 10 - epigomisin O; 11 - gomisin O; 12 - schisantherin A; 13 - schisantherin B; 14 - licarin A; 15 - schisanhenol; 16 - deoxyschisandrin; 17 - fragransin A; 18 - pregomisin; 19 - gomisin N; 20 - 6-O-benzylgomisin O; 21 - schisandrin C.