

A phytochemical and bioactivity study of the Australian plant *Geijera parviflora*

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Supporting Information

S1

Scheme S1.1 Extraction and isolation of compounds from the bark of *G. parviflora*

S2

Scheme S2.1 Extraction and isolation from the leaves of *G. parviflora*

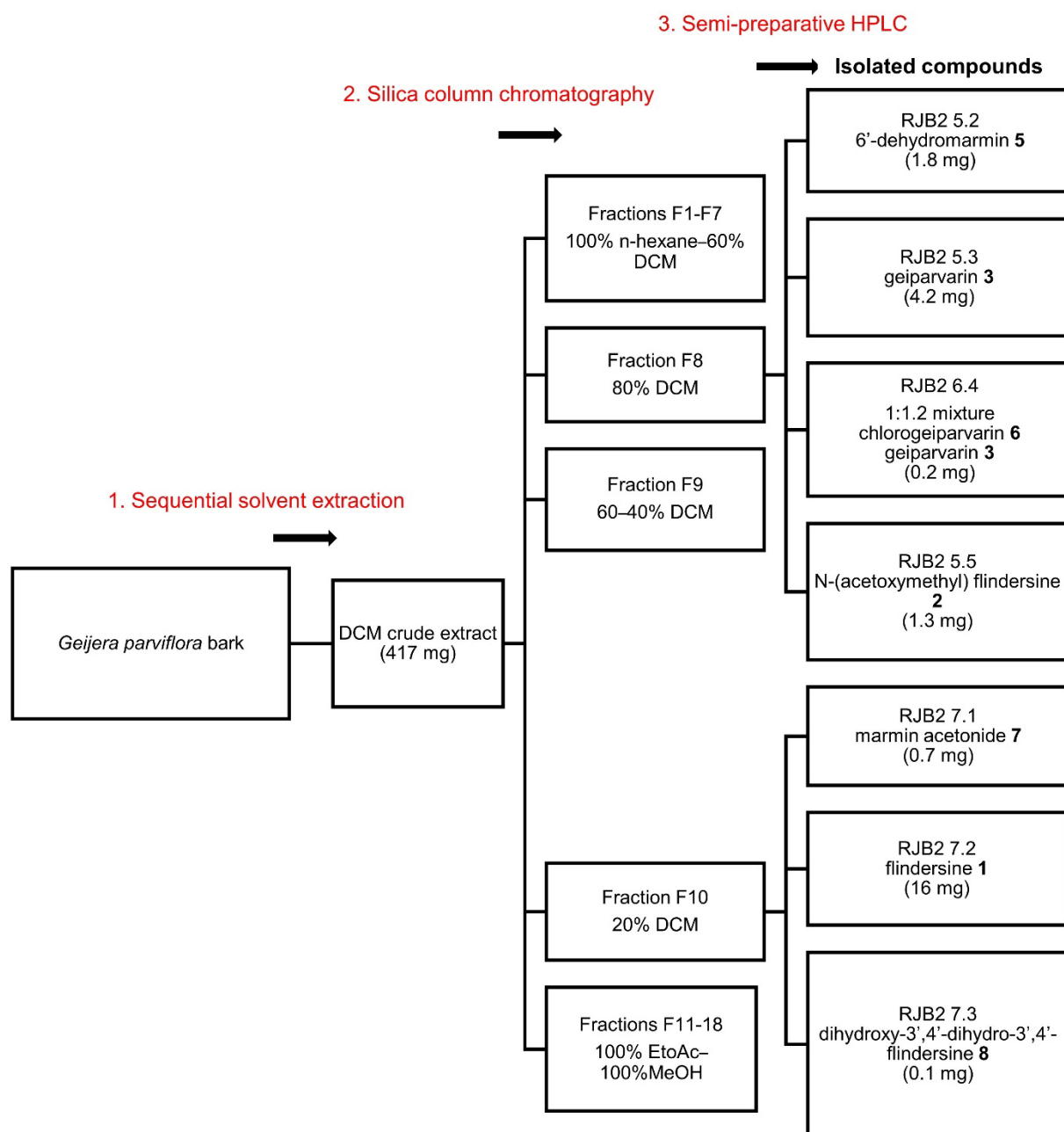
S3

Figure S3.1 ¹H NMR Spectrum of compound **6** chlorogeiparvarin (500 MHz, CDCl₃)

Figure S3.2 gCOSY NMR Spectrum of compound **6** chlorogeiparvarin (500 MHz, CDCl₃)

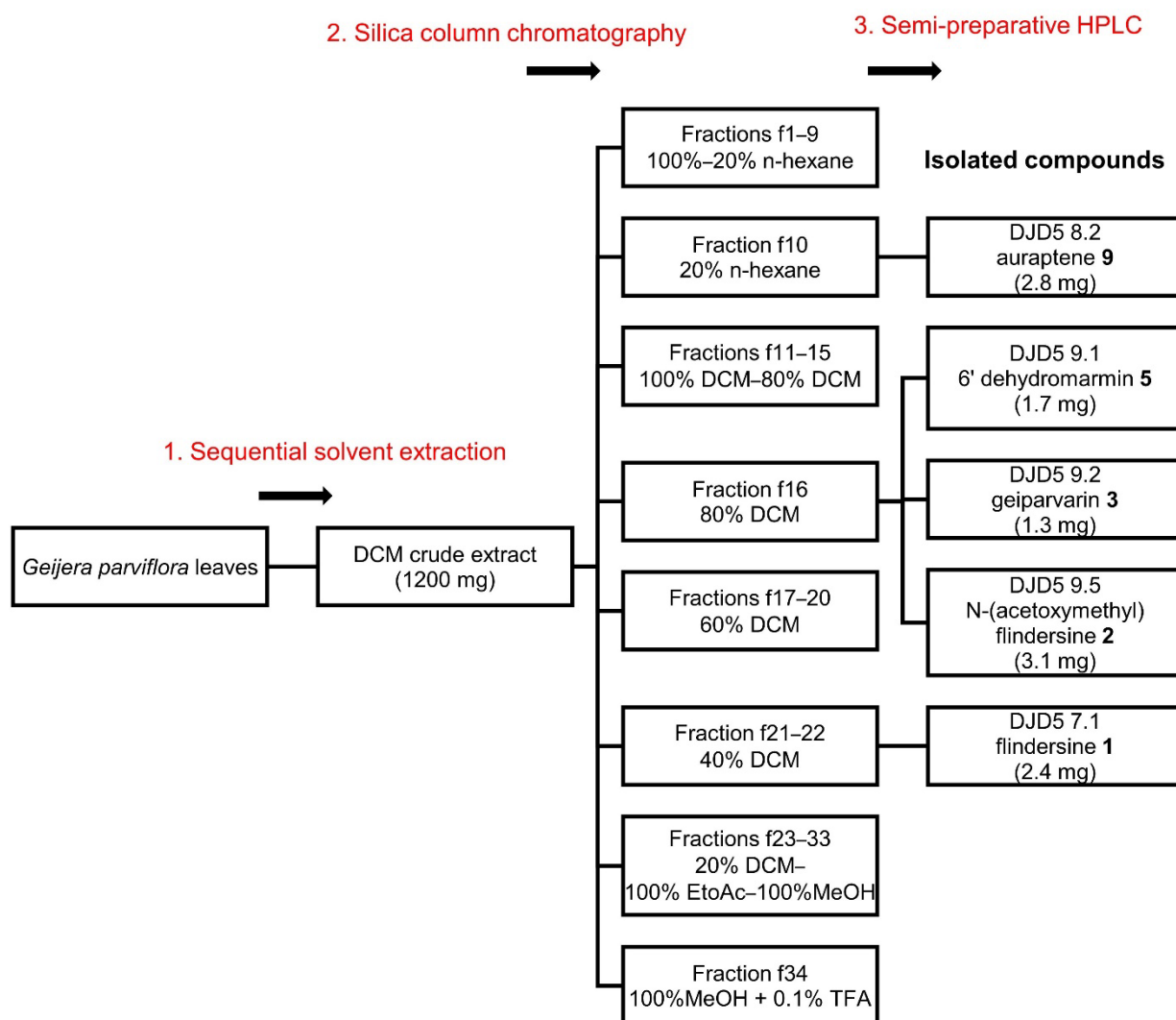
Figure S3.3 HSQCAD NMR Spectrum of compound **6** chlorogeiparvarin (500 MHz, CDCl₃)

Figure S3.4 HMBCAD NMR Spectrum of compound **6** chlorogeiparvarin (500 MHz, CDCl₃)



1. Sequential solvent extraction of the bark of *Geijera parviflora* was undertaken using DCM followed by MeOH. This employed a solvent trituration methodology to exhaustively extract the bark with DCM followed by an exhaustive extraction with MeOH respectively.
2. Silica flash column chromatography was performed using ~ 40–50 g Merck Silica gel 60 (0.040–0.063 mm) with a 1:10 loading capacity. A 20% stepwise solvent elution gradient was employed for fractionation of the crude DCM extracts of the bark using increasingly polar solvents commencing with 100% n-hexane to 100% DCM to 100% EtOAc and finally to 100% MeOH respectively.
3. Reversed phase semi-preparative HPLC was carried out on fractions F8 and F10 employing 50 μ L injections on a Varian Prostar 210 solvent delivery system equipped with a 250 x 9.4 mm, Agilent Eclipse XDB C18 (5 μ m) column and a Prostar 335 PDA detector operated using "Star Workstation" software;

monitoring at wavelengths of 210 nm and 330 nm. Isocratic HPLC methods were used with a solvent ratio of 55% CH₃CN: 45% H₂O and a flow rate of 3.5 mL/min.



1. Sequential solvent extraction of the leaves of *Geijera parviflora* was undertaken using DCM followed by MeOH. This employed a solvent trituration methodology to exhaustively extract the leaves with DCM followed by an exhaustive extraction with MeOH respectively.
2. Silica flash column chromatography was performed using ~ 40–50 g Merck Silica gel 60 (0.040–0.063 mm) with a 1:10 loading capacity. A 20% stepwise solvent elution gradient was employed for fractionation of the crude DCM extracts of the leaves using increasingly polar solvents commencing with- 100% n-hexane to 100% DCM to 100% EtOAc and finally to 100% MeOH respectively.
3. Reversed phase semi-preparative HPLC was carried out on selected fractions employing 30 μ L injections on a Varian Prostar 210 solvent delivery system equipped with a 250 x 9.4 mm, Agilent Eclipse XDB C18 (5 μ m) column and a Prostar 335 PDA detector operated using “Star Workstation” software; monitoring at wavelengths of 210 nm and 330 nm. Isocratic HPLC methods were used with solvent ratio of 80% CH₃CN: 20% H₂O at a flow rate of 4 mL/min for fraction f10, 60% CH₃CN: 40% H₂O at a flow rate of 3.5 mL/min for fraction f16, 50% CH₃CN: 50% H₂O at a flow rate of 3.5 mL/min for fraction f21.

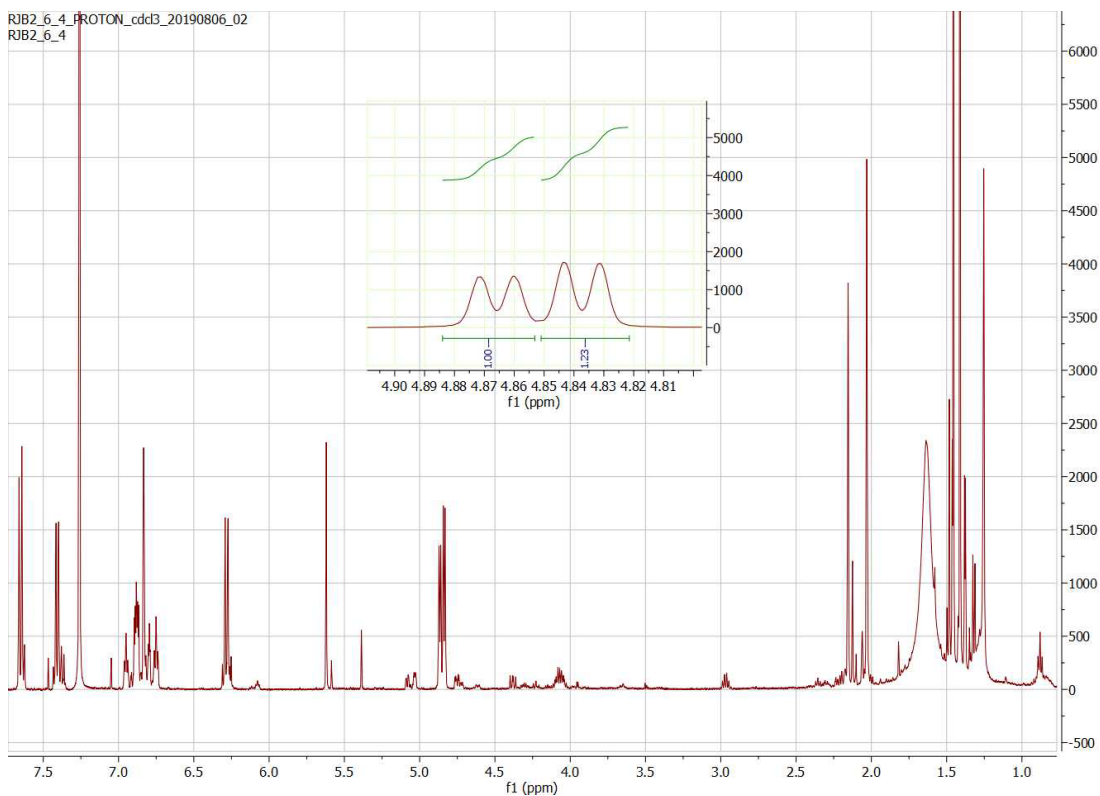


Figure S3.1 ^1H NMR Spectrum of compound 6 chlorogeiparvarin (500 MHz, CDCl_3)

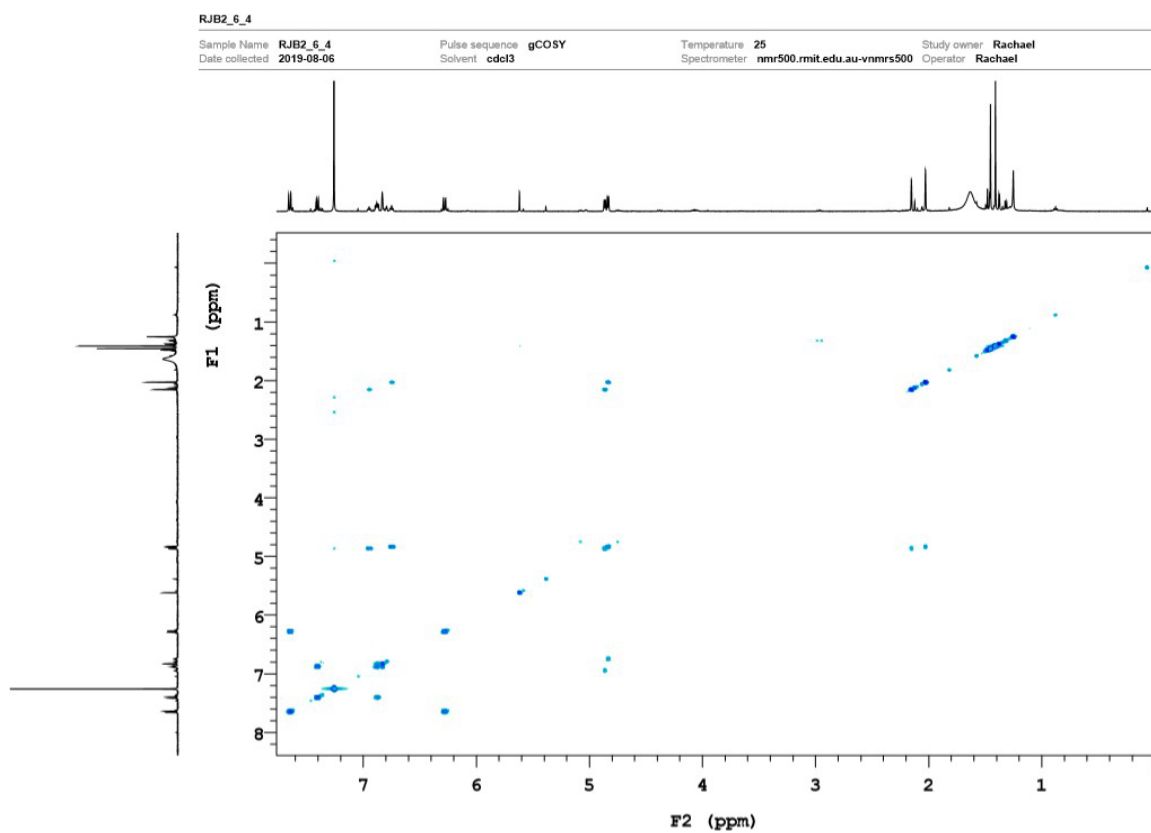


Figure S3.2 gCOSY NMR Spectrum of compound 6 chlorogeiparvarin (500 MHz, CDCl_3)

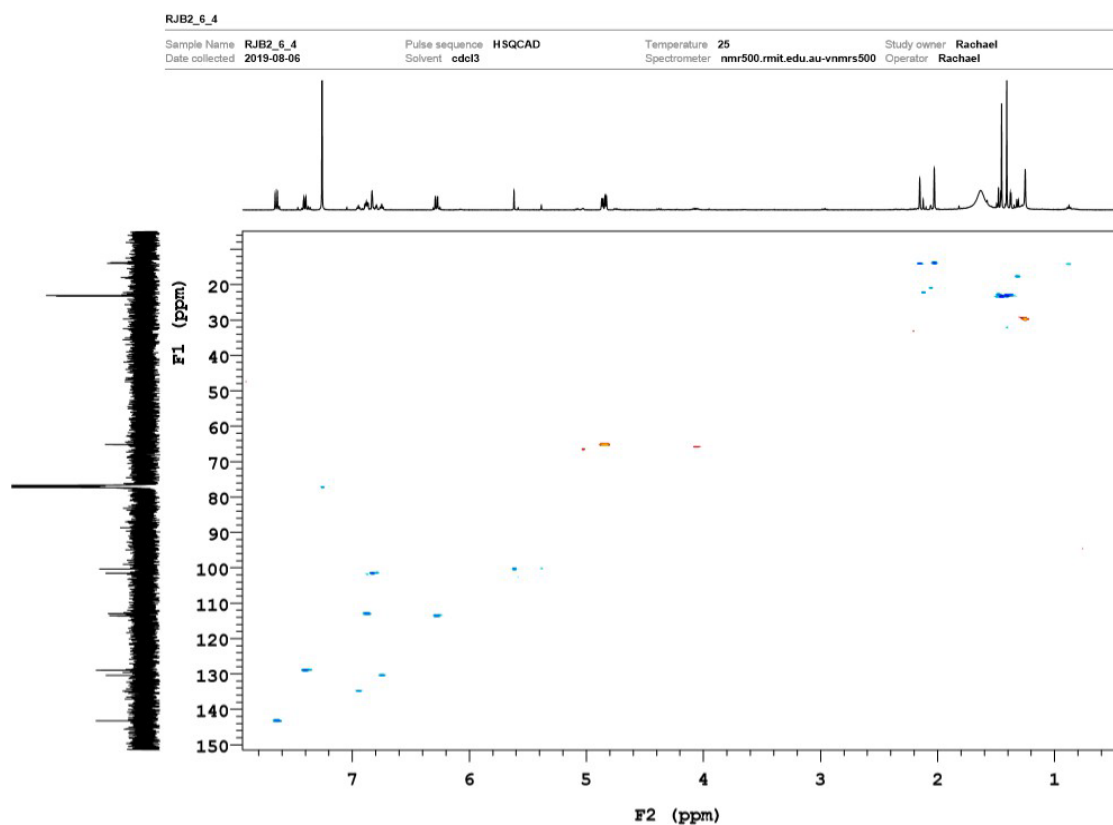


Figure S3.3 HSQCAD NMR Spectrum of compound 6 chlorogeiparvarin (500 MHz, CDCl_3)

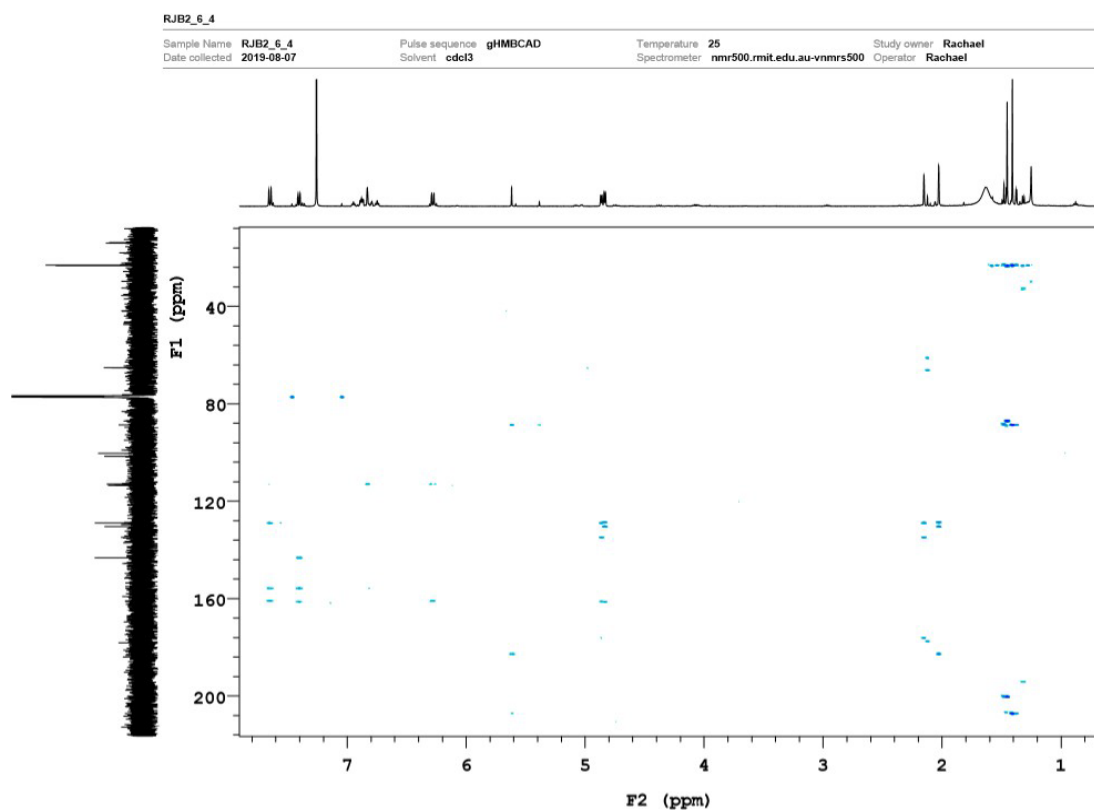


Figure S3.4 HMBCAD NMR Spectrum of compound 6 chlorogeiparvarin (500 MHz, CDCl_3)