

Supplementary Information

Chemical Profile, Antiproliferative and Antioxidant Activities of *Genista januensis* subsp. *lydia* (Boiss.) Kit Tan & Ziel (Fabaceae)

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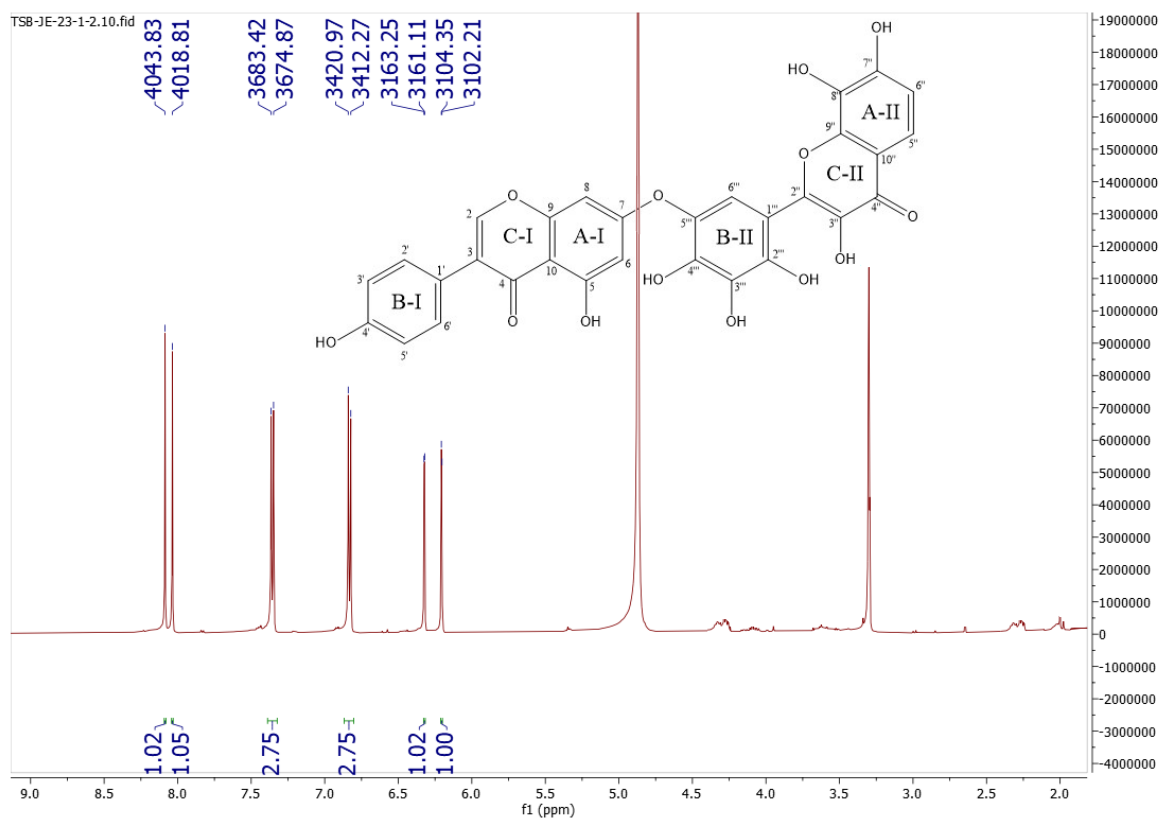


Figure S1. ^1H NMR (CD $_3$ OD, 500 MHz) spectrum of compound 4.

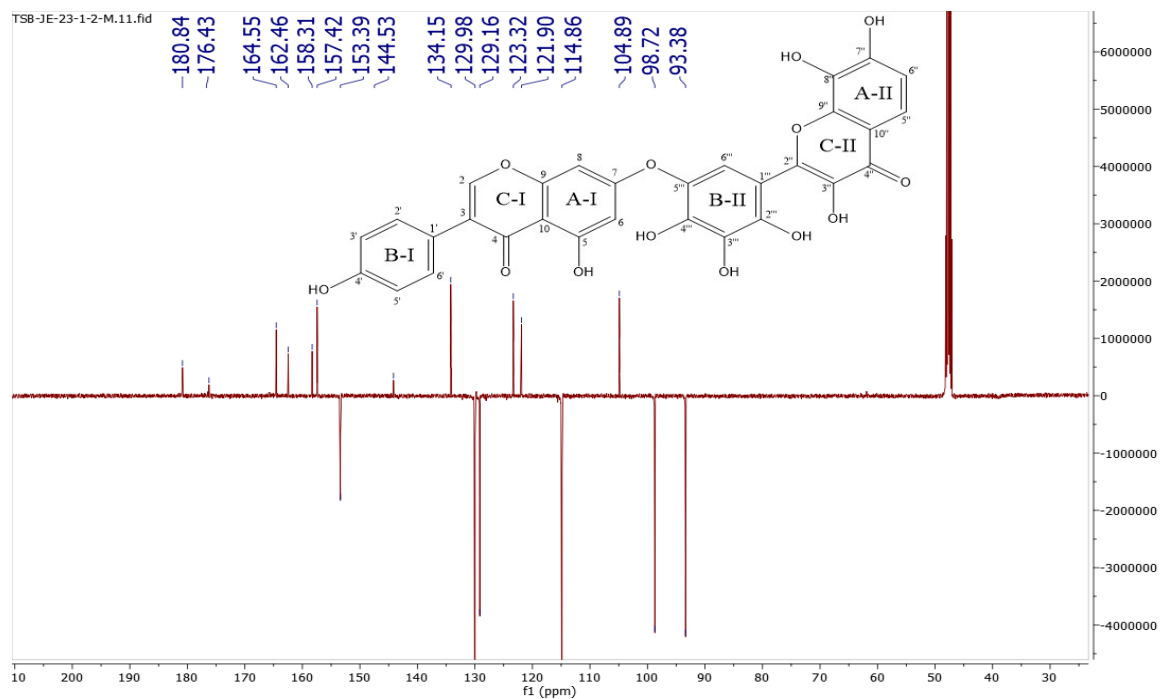


Figure S2. APT spectrum of compound 4.

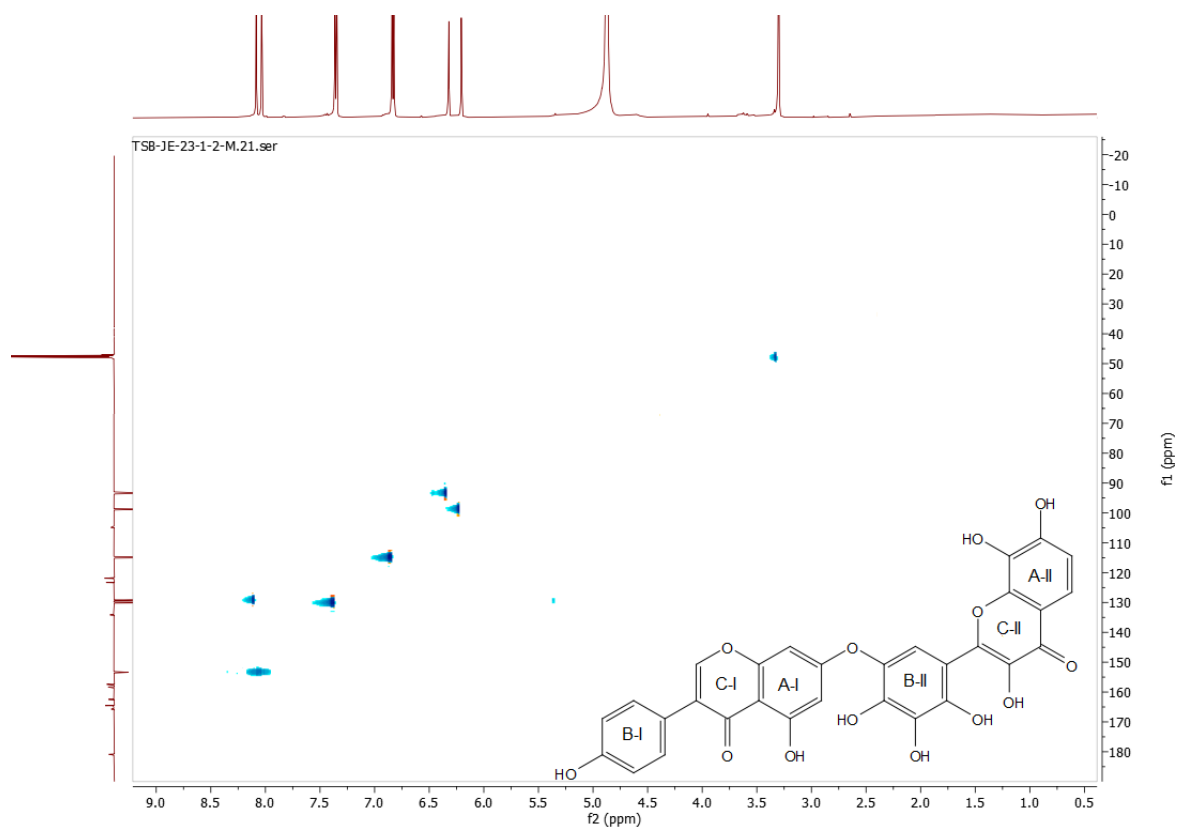


Figure S3. HSQC spectrum of compound 4.

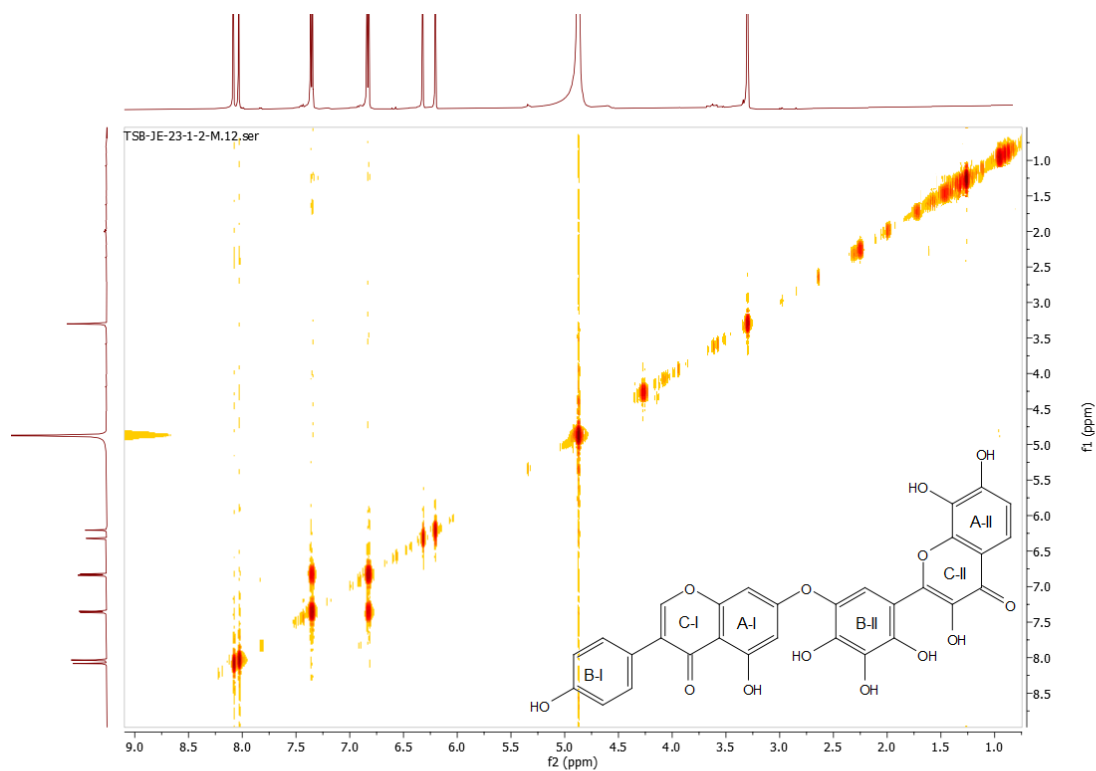


Figure S4. ^1H - ^1H COSY spectrum of compound 4 (CD_3OD , 500 MHz).

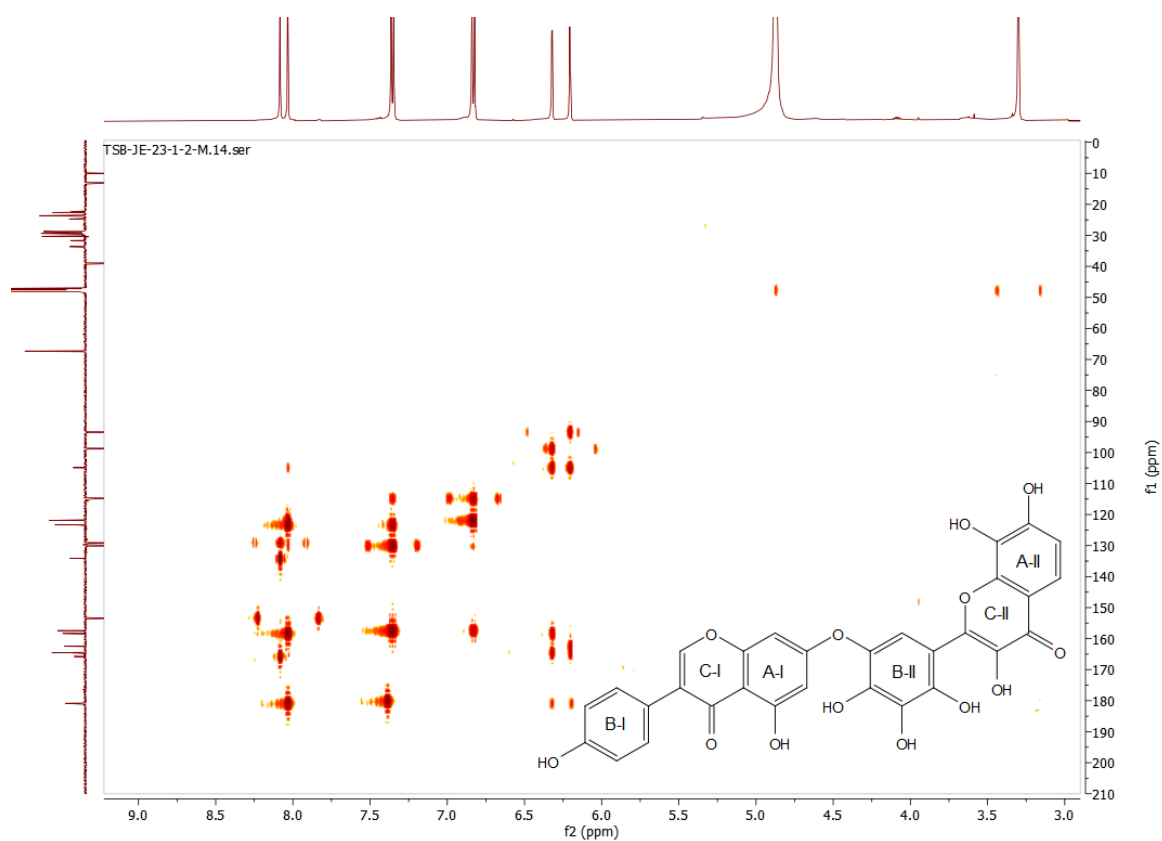


Figure S5. HMBC spectrum of compound **4** (CD₃OD, 500 MHz).

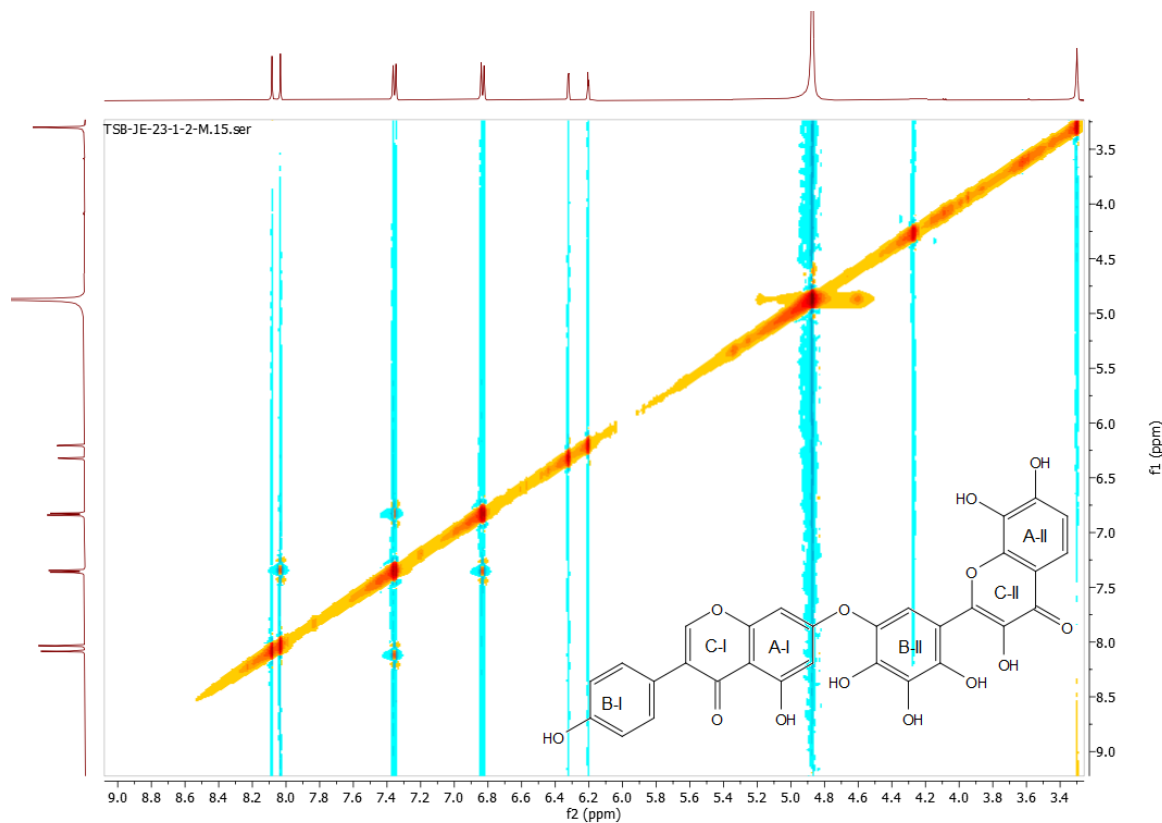


Figure S6. NOESY spectrum of compound **4** (CD₃OD, 500 MHz).

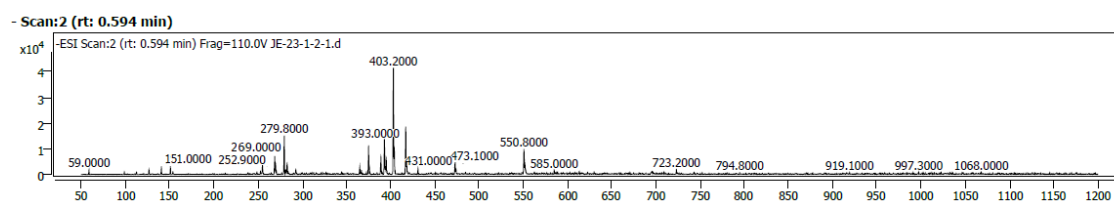


Figure S7. LC-ESI-MS spectrum of compound **4**

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 Max. 197.0 cps.
 a=5.73470941569881820e-004, t0=9.91088322638385280e-002 (DuoSpray ())

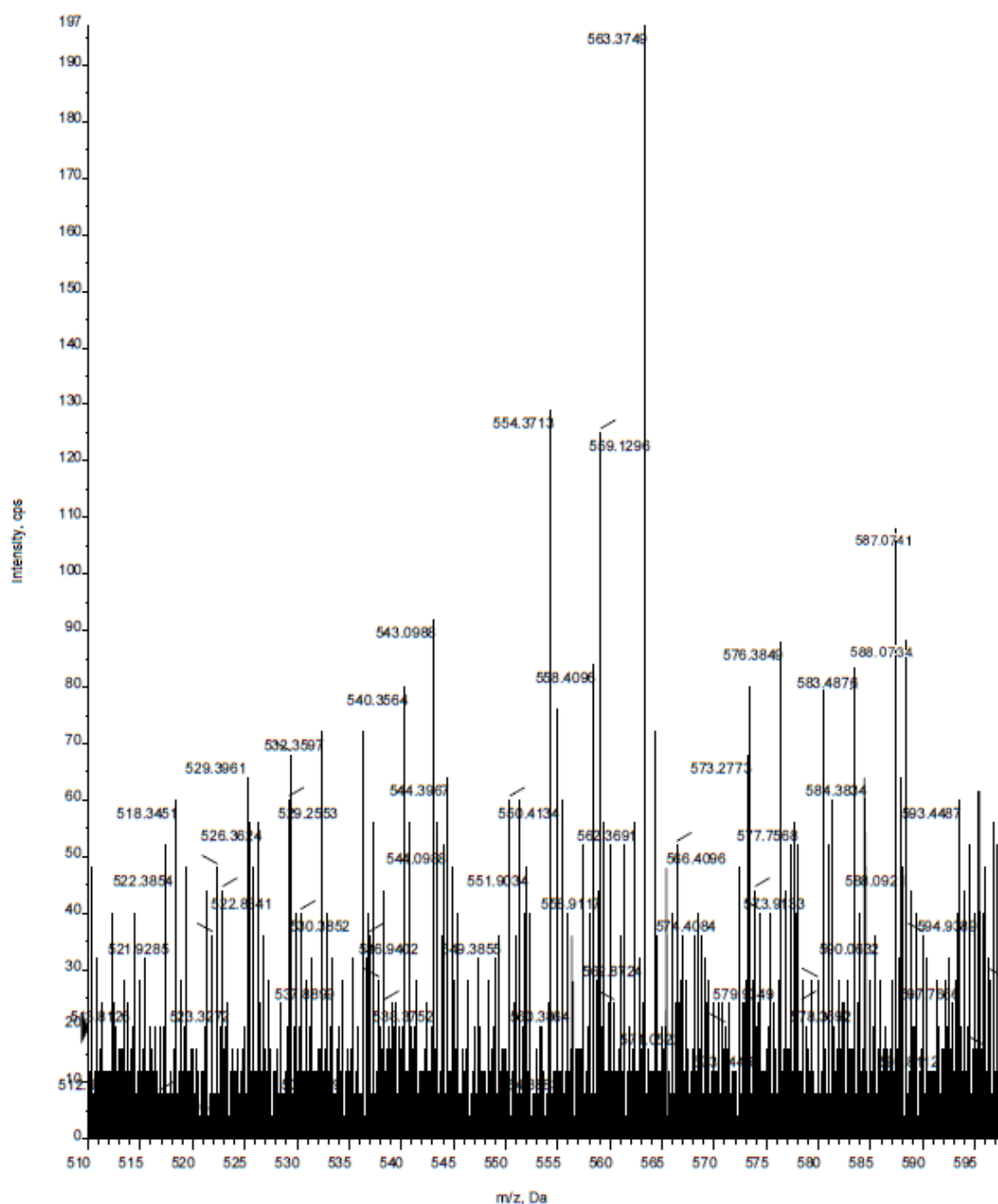


Figure S8. LC-QTOF-MS spectrum of compound **4**.

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Max. 2931.6 cps.

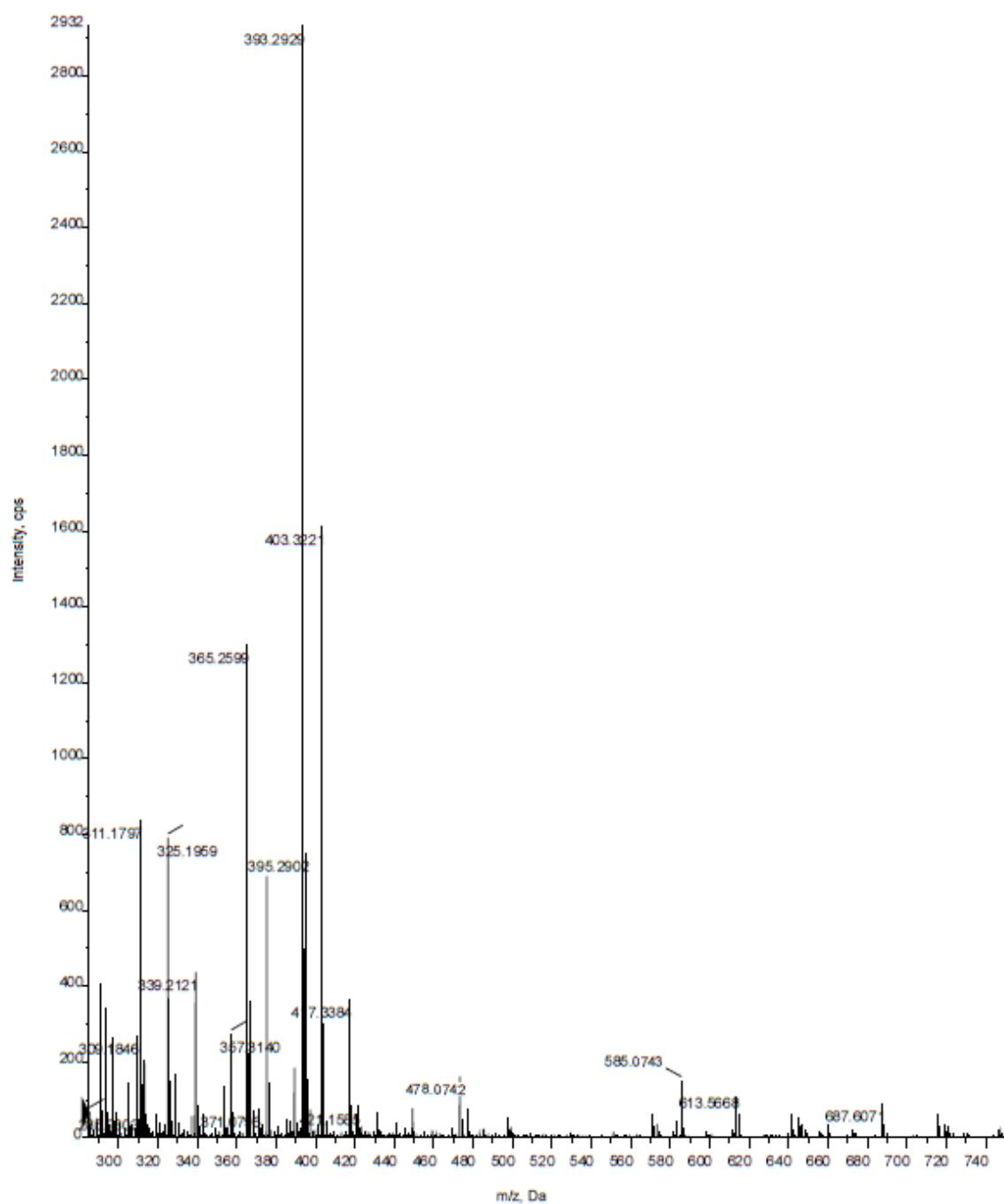
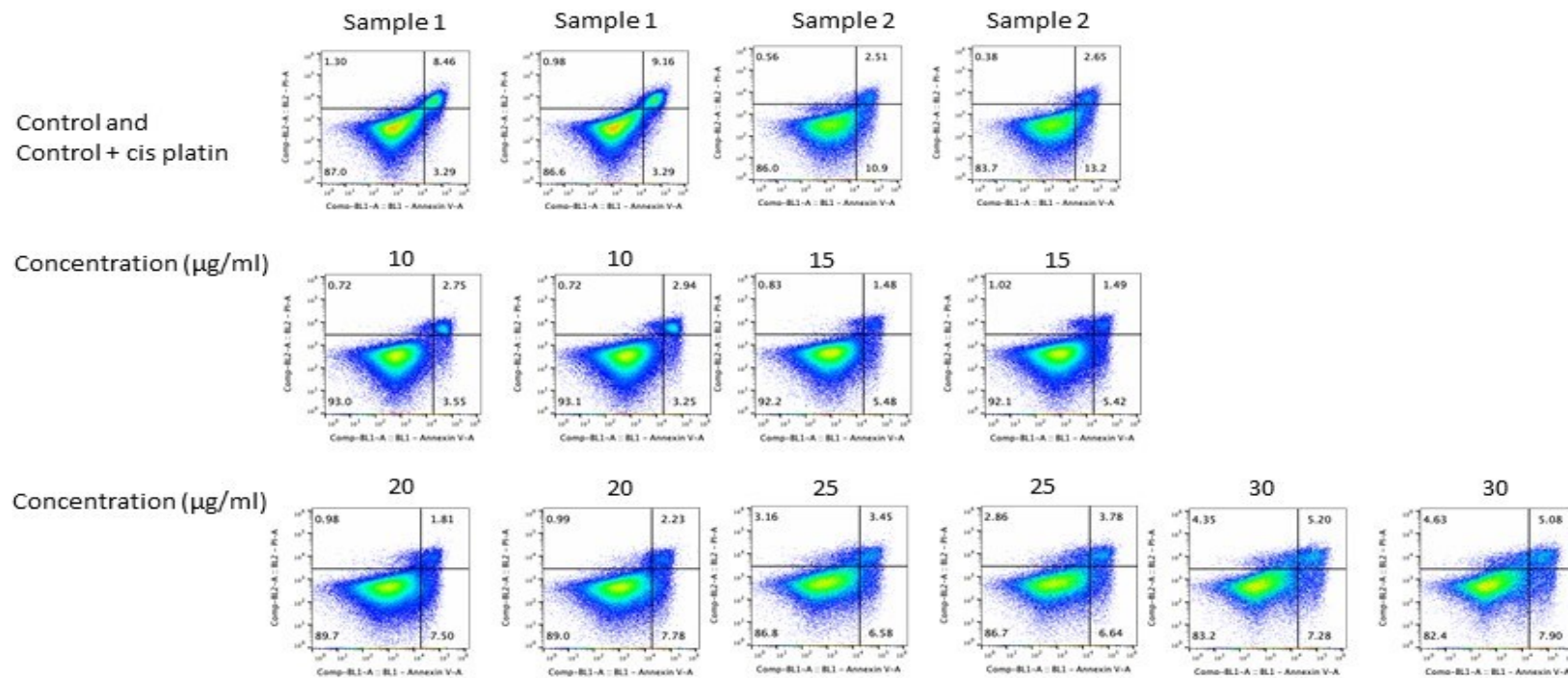


Figure S9. LC-QTOF-MS spectrum of compound 4.

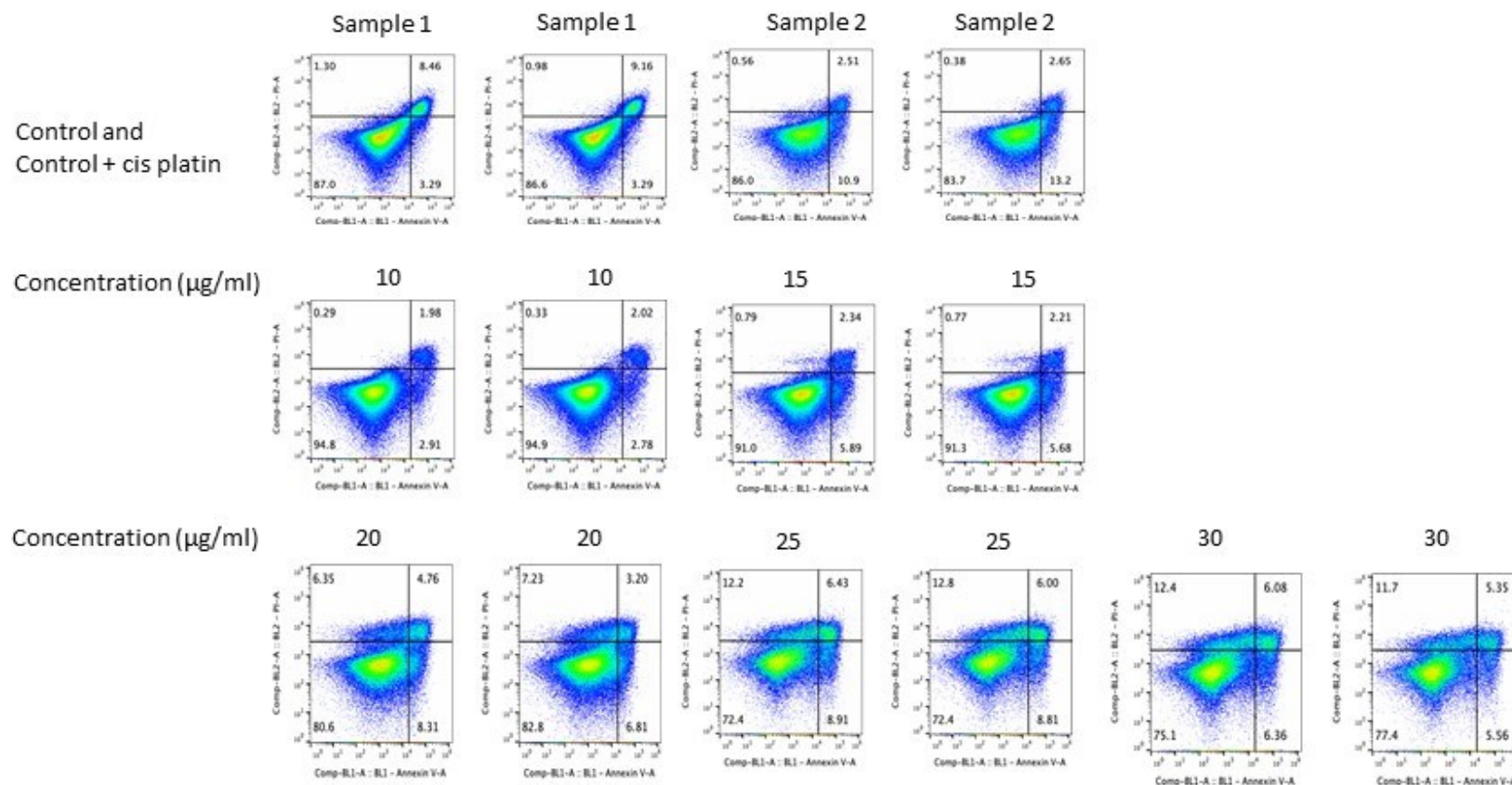
Hexane extract



A549 cell line

Figure S10. Dose-dependent apoptosis graphs in human A549 cancer cells in hexane extract of *G. januensis* extract applications.

Chloroform extract



A549 cell line

Figure S11. Dose-dependent apoptosis graphs in human A549 cancer cells in chloroform extract of *G. januensis* extract applications.

MeOH extract

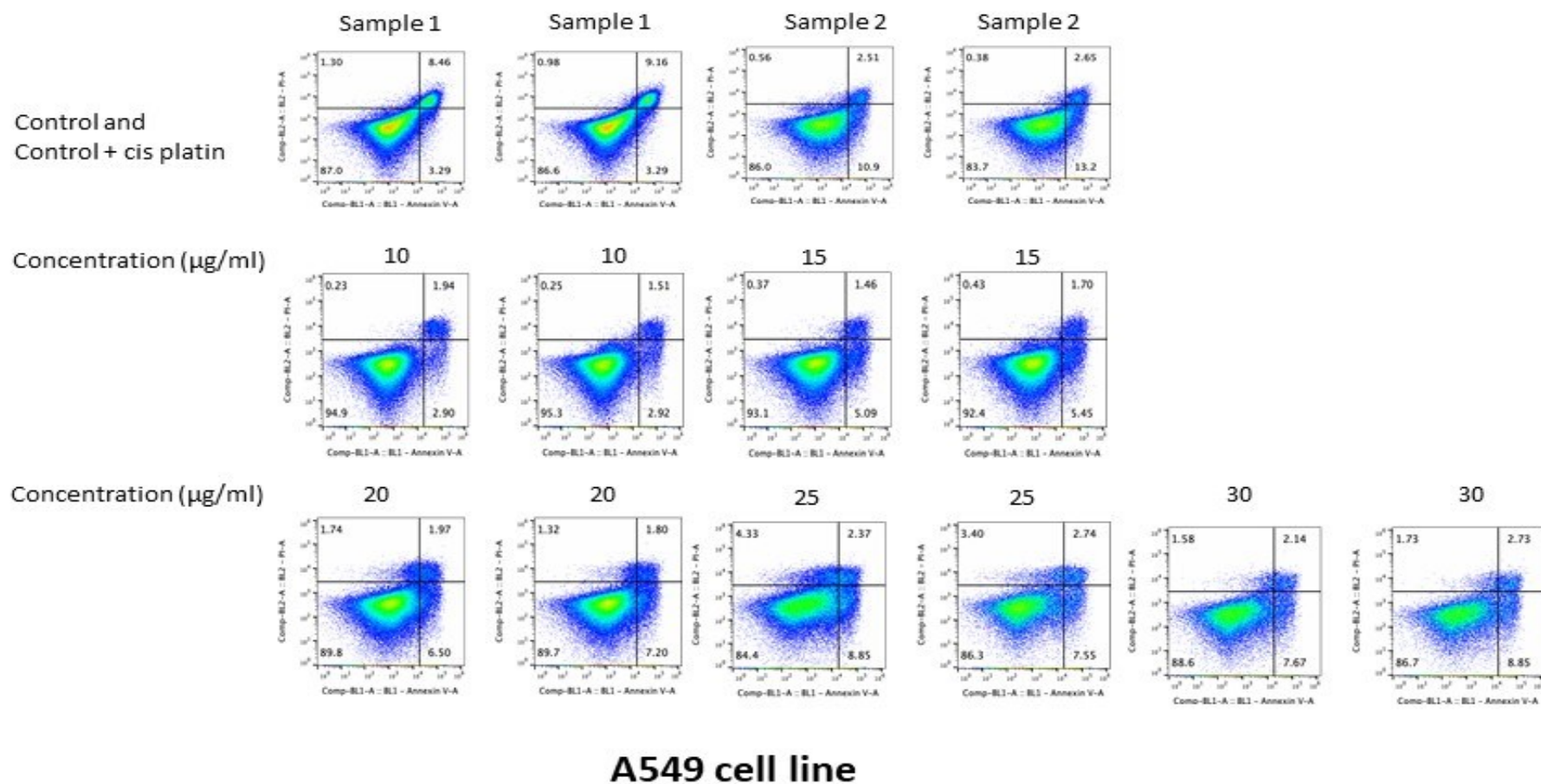


Figure S12. Dose-dependent apoptosis graphs in human A549 cancer cells in MeOH extract of *G. januensis* extract applications.

Crystal extract

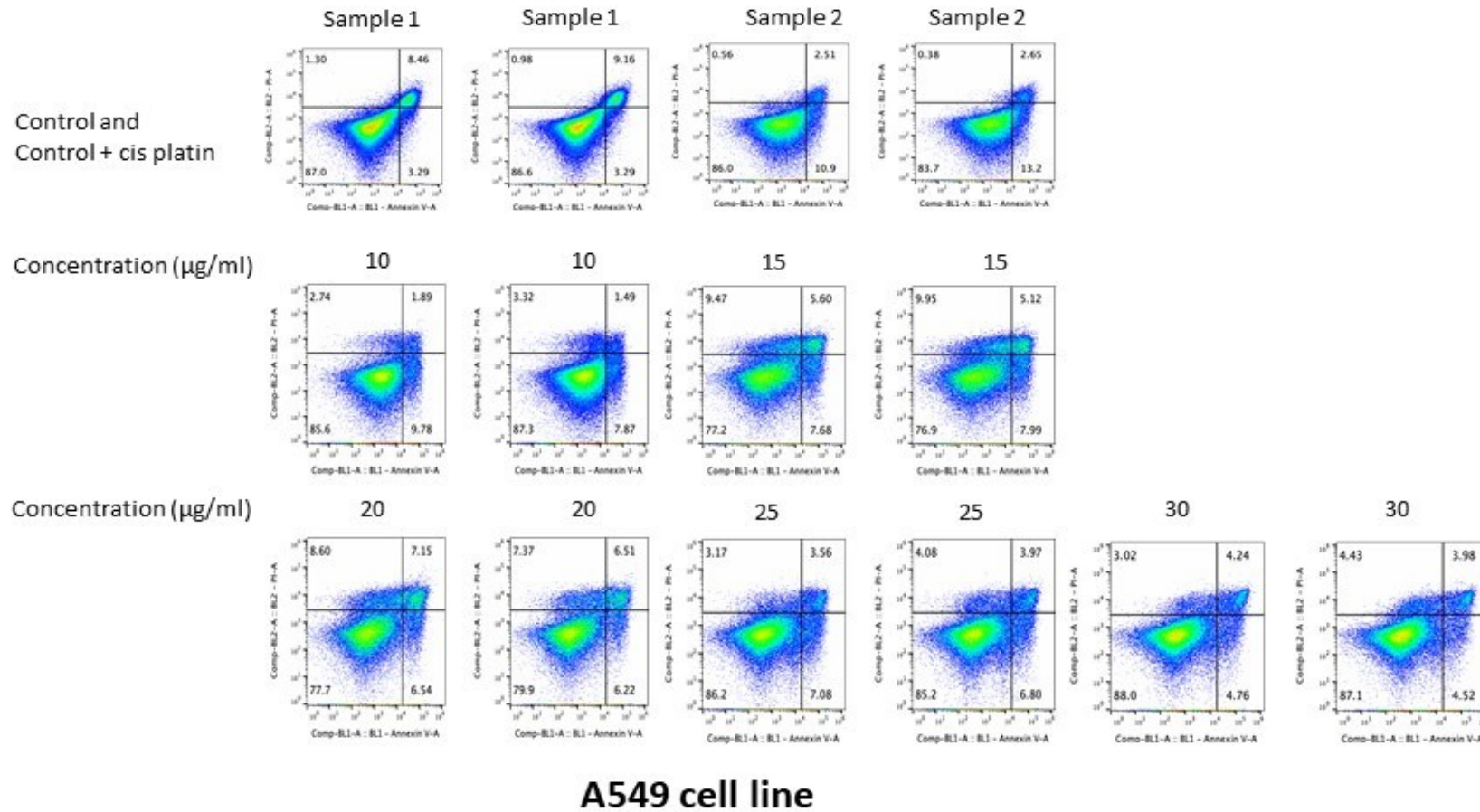


Figure S13. Dose-dependent apoptosis graphs in human A549 cancer cells in crystal extract of *G. januensis* crystal extract applications.

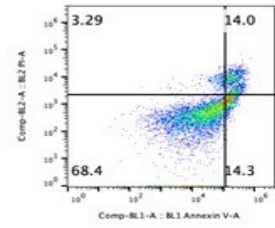
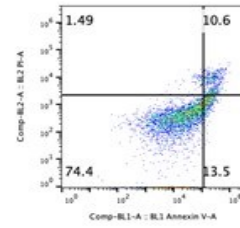
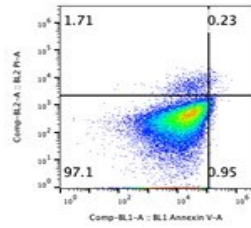
Hexane extract

Sample 1

Sample 1

Sample 1

Control and
Control + cis platin

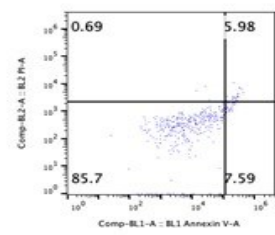
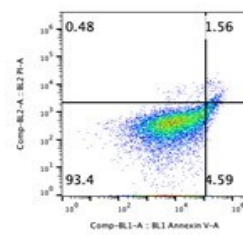
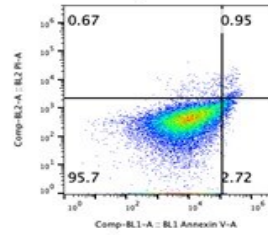


Concentration ($\mu\text{g/ml}$)

7,5

10

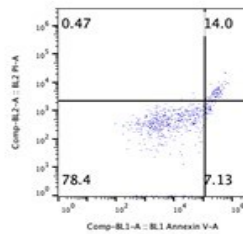
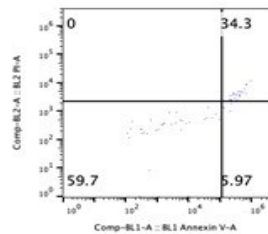
15



Concentration ($\mu\text{g/ml}$)

20

30

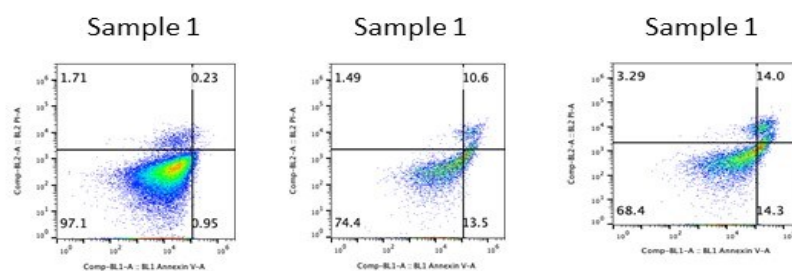


MCF-7 cell line

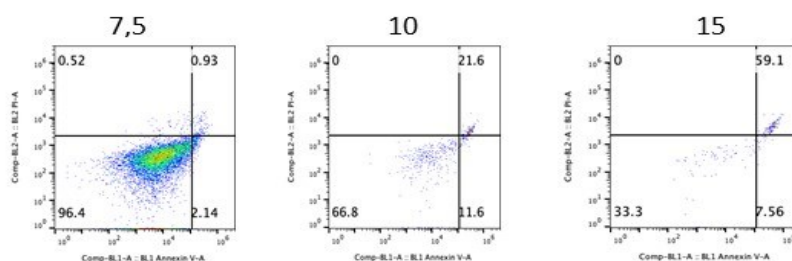
Figure S14. Dose-dependent apoptosis graphs in human MCF-7 cancer cells in hexane extract of *G. januensis* extract applications.

Chloroform extract

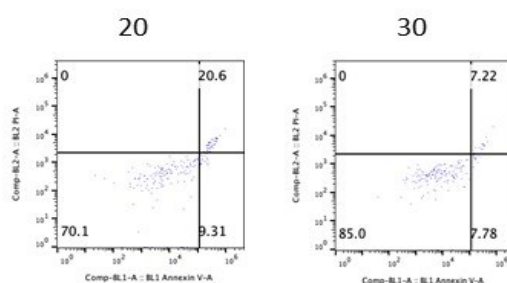
Control and
Control + cis platin



Concentration (µg/ml)



Concentration (µg/ml)



MCF-7 cell line

Figure S15. Dose-dependent apoptosis graphs in human MCF-7 cancer cells in chloroform extract of *G. januensis* extract applications.

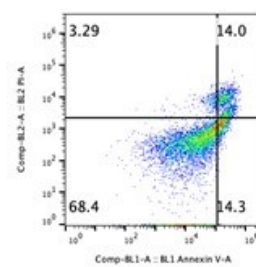
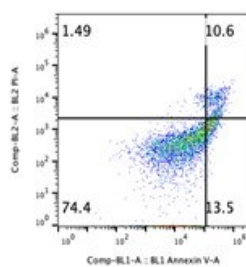
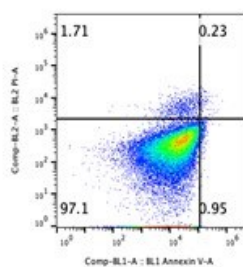
MeOH extract

Sample 1

Sample 1

Sample 1

Control and
Control + cis platin

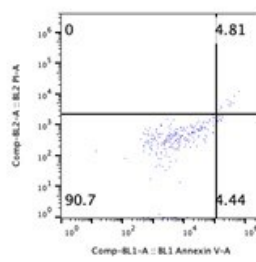
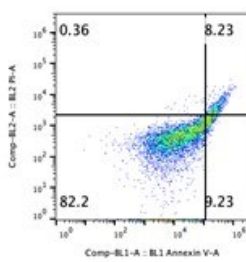
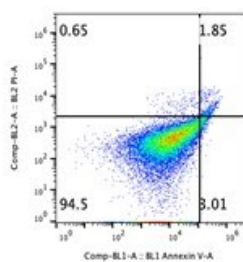


Concentration ($\mu\text{g/ml}$)

7,5

10

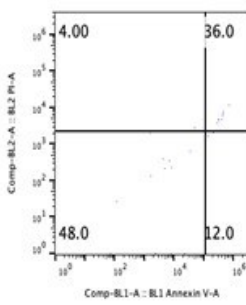
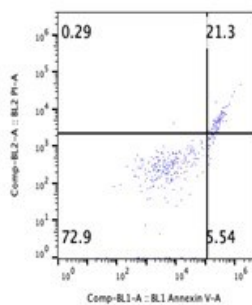
15



Concentration ($\mu\text{g/ml}$)

20

30



MCF-7 cell line

Figure S16. Dose-dependent apoptosis graphs in human MCF-7 cancer cells in MeOH extract of *G. januensis* extract applications.

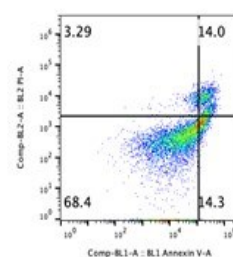
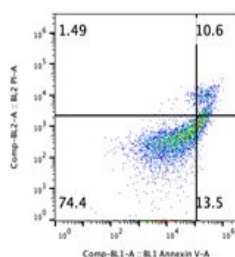
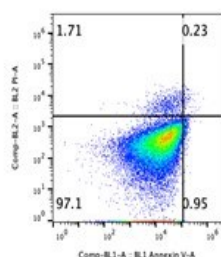
Crystal extract

Sample 1

Sample 1

Sample 1

Control and
Control + cis platin

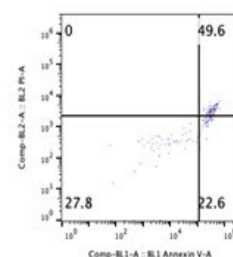
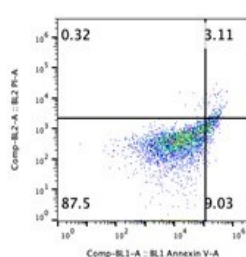
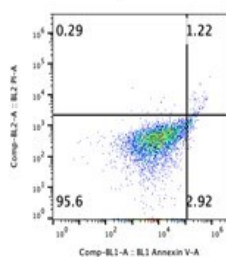


Concentration (µg/ml)

7,5

10

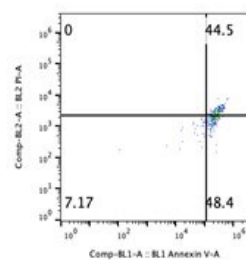
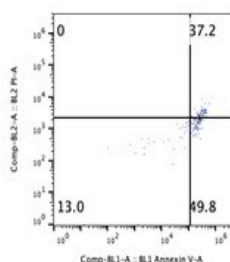
15



Concentration (µg/ml)

20

30



MCF-7 cell line

Figure S17. Dose-dependent apoptosis graphs in human MCF-7 cancer cells in crystal extract of *G. januensis* extract applications.

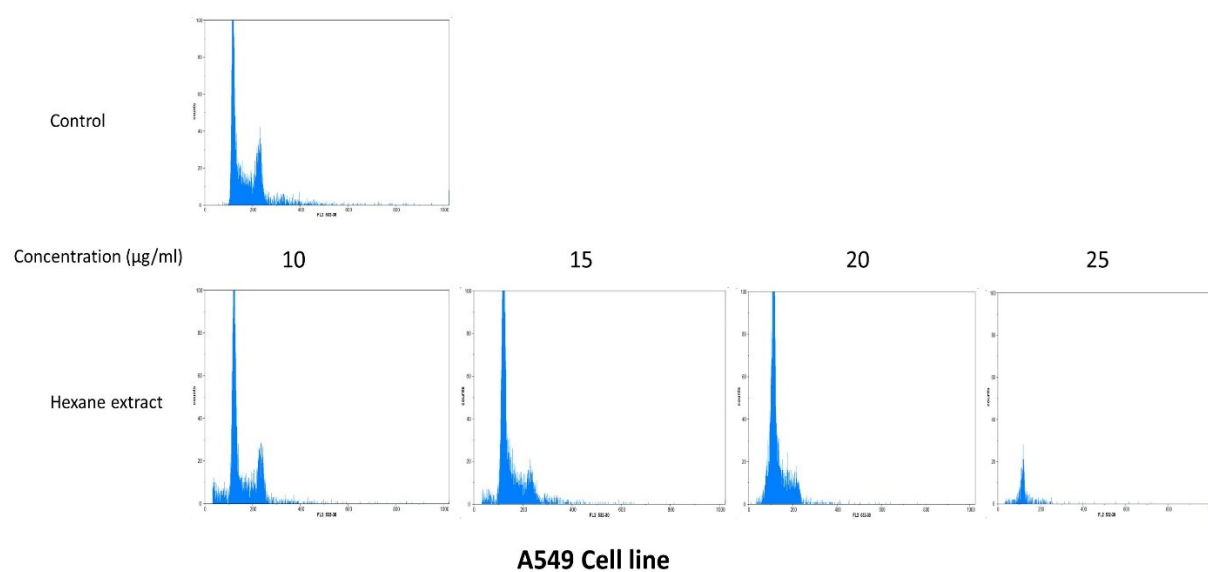


Fig 18. Dose-dependent cell cycle analysis graphs in human A549 cell lines for applications of hexane extract of *G. januensis*.

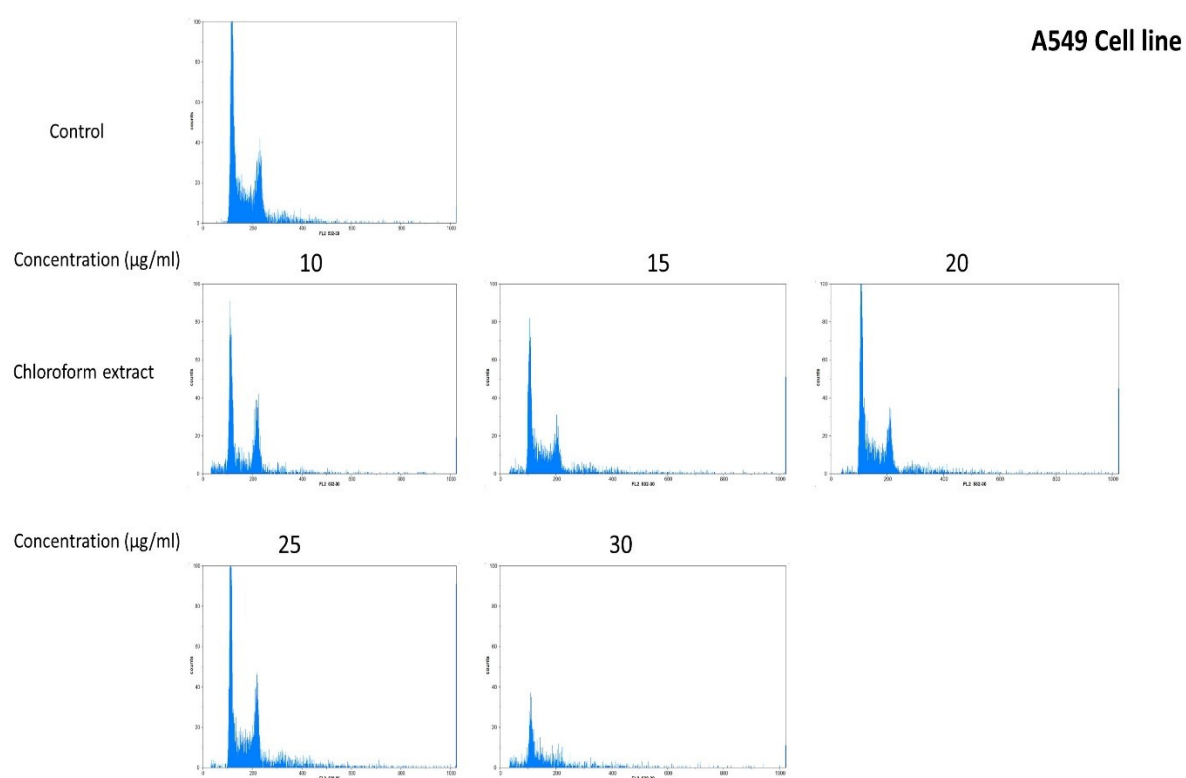


Fig 19. Dose-dependent cell cycle analysis graphs in human A549 cell lines for applications of chloroform extract of *G. januensis*.

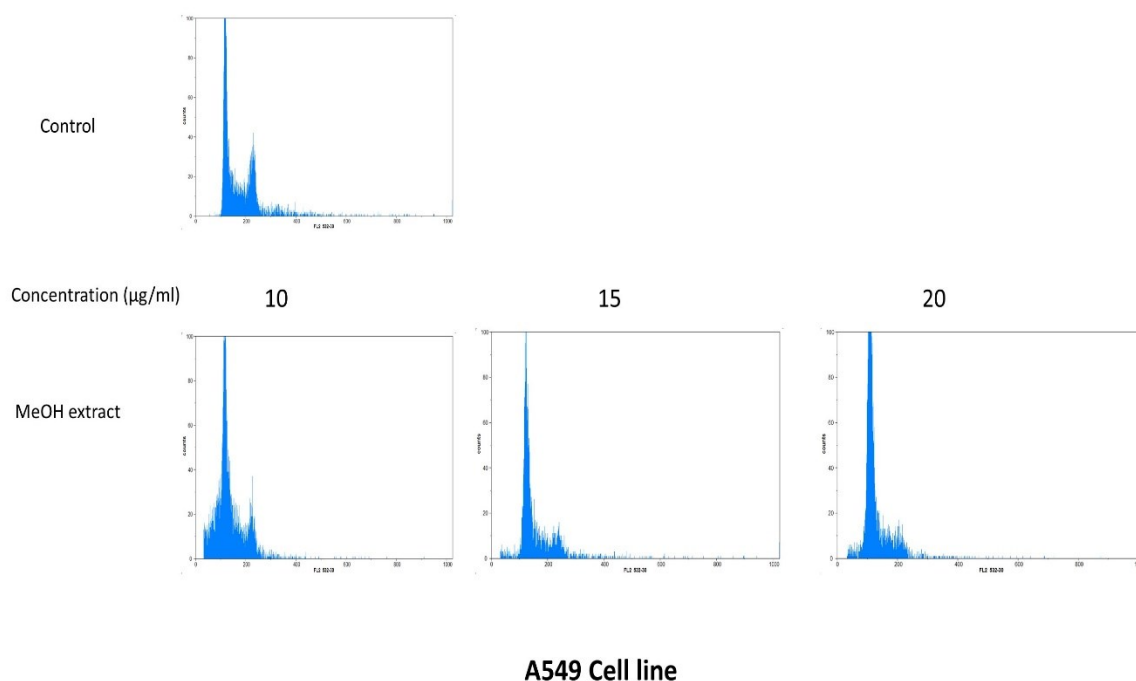


Fig 20. Dose-dependent cell cycle analysis graphs in human A549 cell lines for applications of MeOH extract of *G. januensis*.

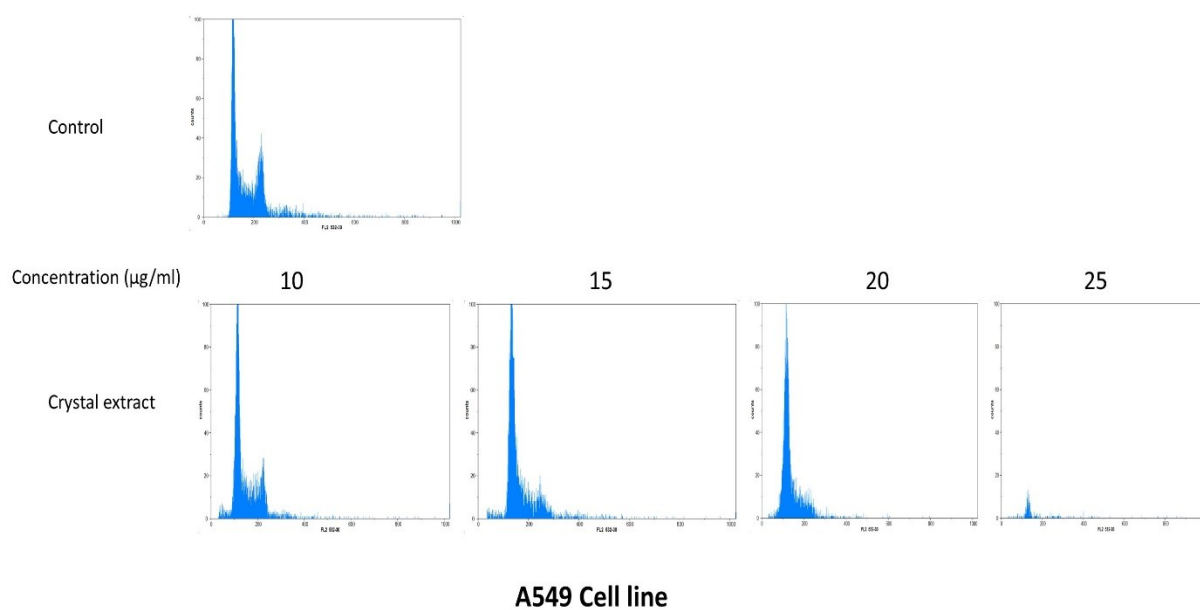


Fig 21. Dose-dependent cell cycle analysis graphs in human A549 cell lines for applications of crystal extract of *G. januensis*.

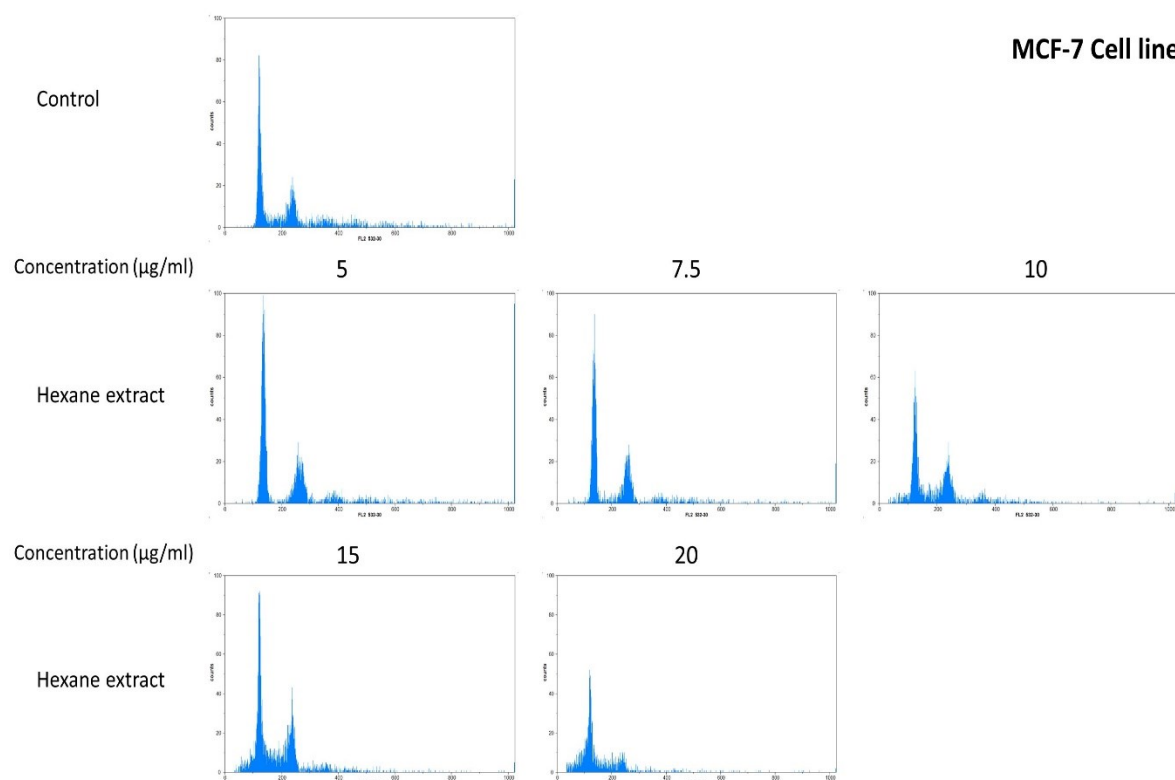


Fig 22. Dose-dependent cell cycle analysis graphs in human MCF-7 cell lines for applications of hexane extract of *G. januensis*.

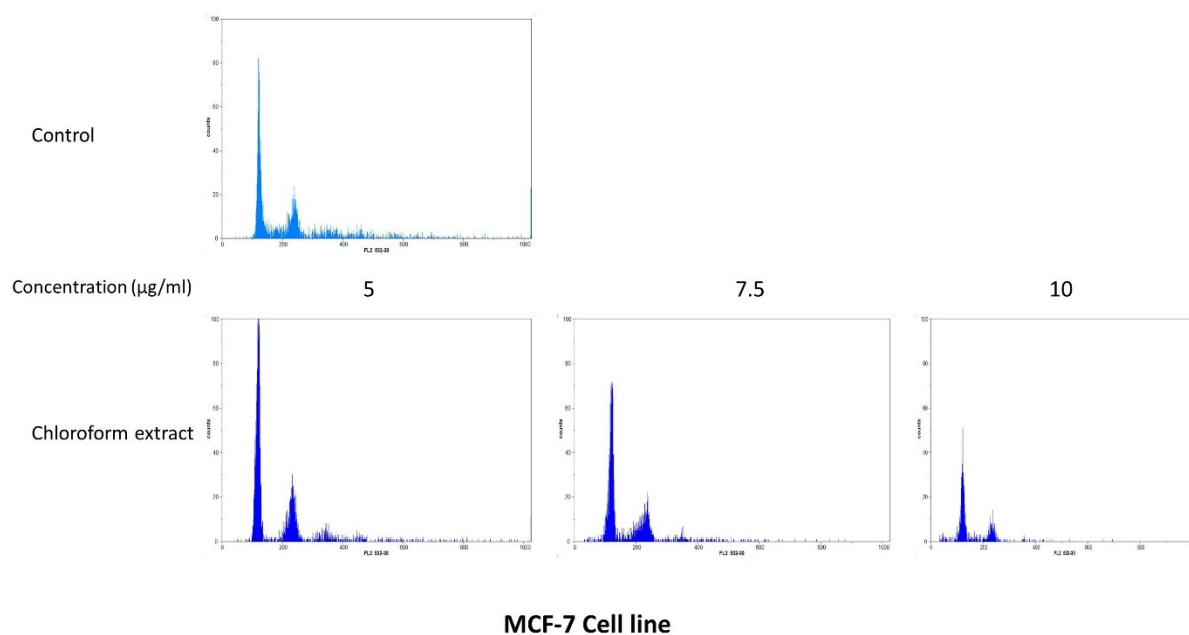


Fig 23. Dose-dependent cell cycle analysis graphs in human MCF-7 cell lines for applications of chloroform extract of *G. januensis*.

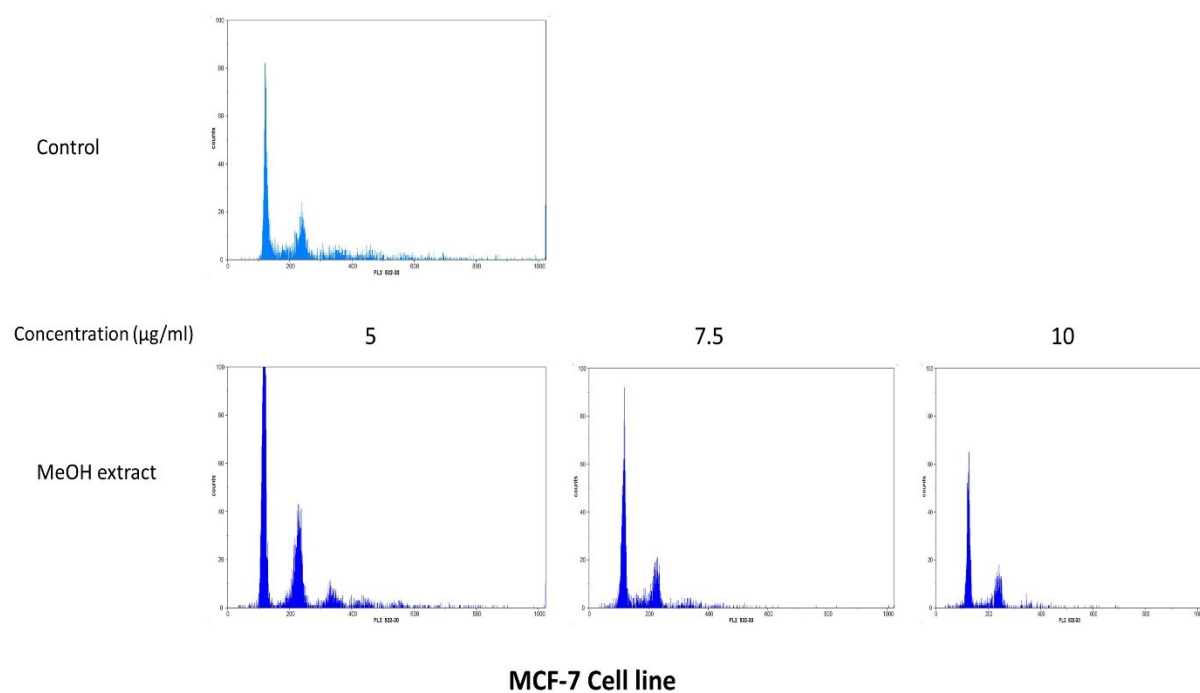


Fig 24. Dose-dependent cell cycle analysis graphs in human MCF-7 cell lines for applications of MeOH extract of *G. januensis*.

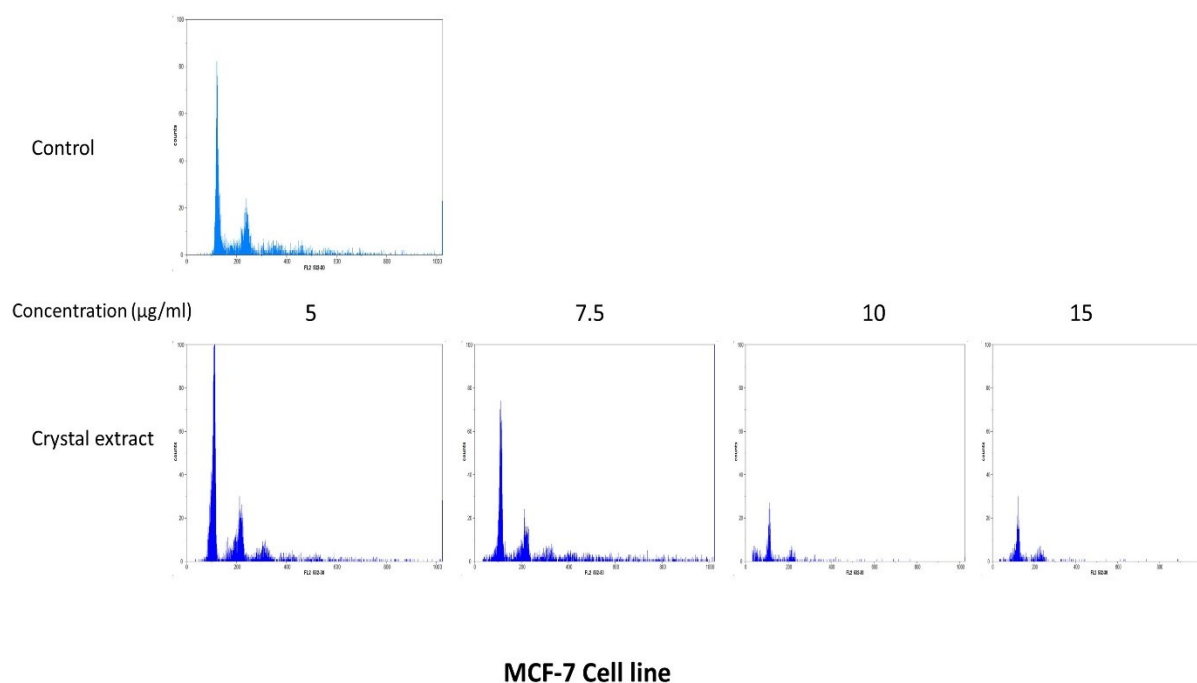


Fig 25. Dose-dependent cell cycle analysis graphs in human MCF-7 cell lines for applications of crystal extract of *G. januensis*.