

Supplementary Information 1

***Cortinarius steglichii*: a taxonomical and chemical novelty from Chile**

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Table of Contents

Figure S1	Negative ion HRESIMS spectrum of steglichon (1)
Figure S2	¹ H NMR spectrum (400 MHz, CDCl ₃) of steglichon (1)
Figure S3	¹ H NMR spectrum (600 MHz, CDCl ₃) of steglichon (1)
Figure S4	¹³ C NMR spectrum (100 MHz, CDCl ₃) of steglichon (1)
Figure S5	DEPT spectrum (100 MHz, CDCl ₃) of steglichon (1)
Figure S6	HSQC spectrum (400/100 MHz, CDCl ₃) of steglichon (1)
Figure S7	HMBC spectrum (600/150 MHz, CDCl ₃) of steglichon (1)
Figure S8	COSY spectrum (400 MHz, CDCl ₃) of steglichon (1)
Figure S9	TOCSY spectrum (400 MHz, CDCl ₃) of steglichon (1)
Figure S10	NOESY spectrum (400 MHz, CDCl ₃) of steglichon (1)
Figure S11	UV spectrum of steglichon (1)
Figure S12	Color reaction of steglichon (1) on TLC with 10% KOH
Figure S13	Phylogenetic relationship (Bayesian consensus tree) of <i>Cortinarius steglichii</i> based on the combined analysis of <i>RPB1</i> , ITS and LSU sequences
Table S1	Genbank accession numbers and collection information's for the material used for phylogeny

Figure S1. Negative ion HRESIMS spectrum of steglichon (**1**).

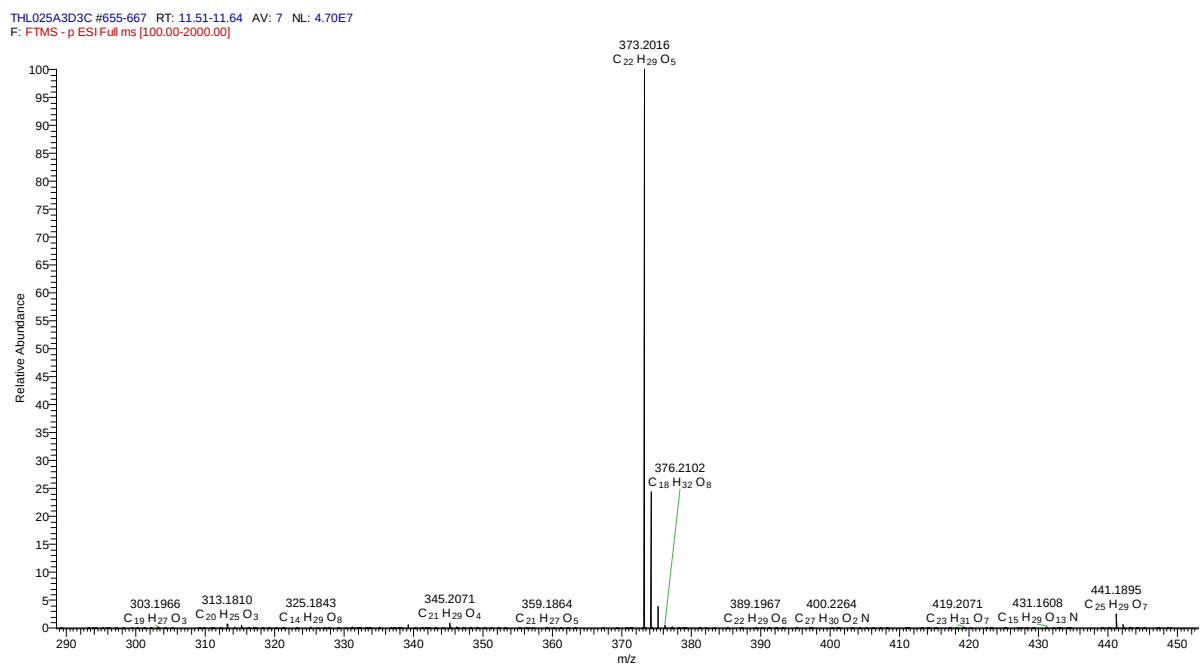


Figure S2. ¹H NMR spectrum (400 MHz, CDCl₃) of steglichon (**1**).

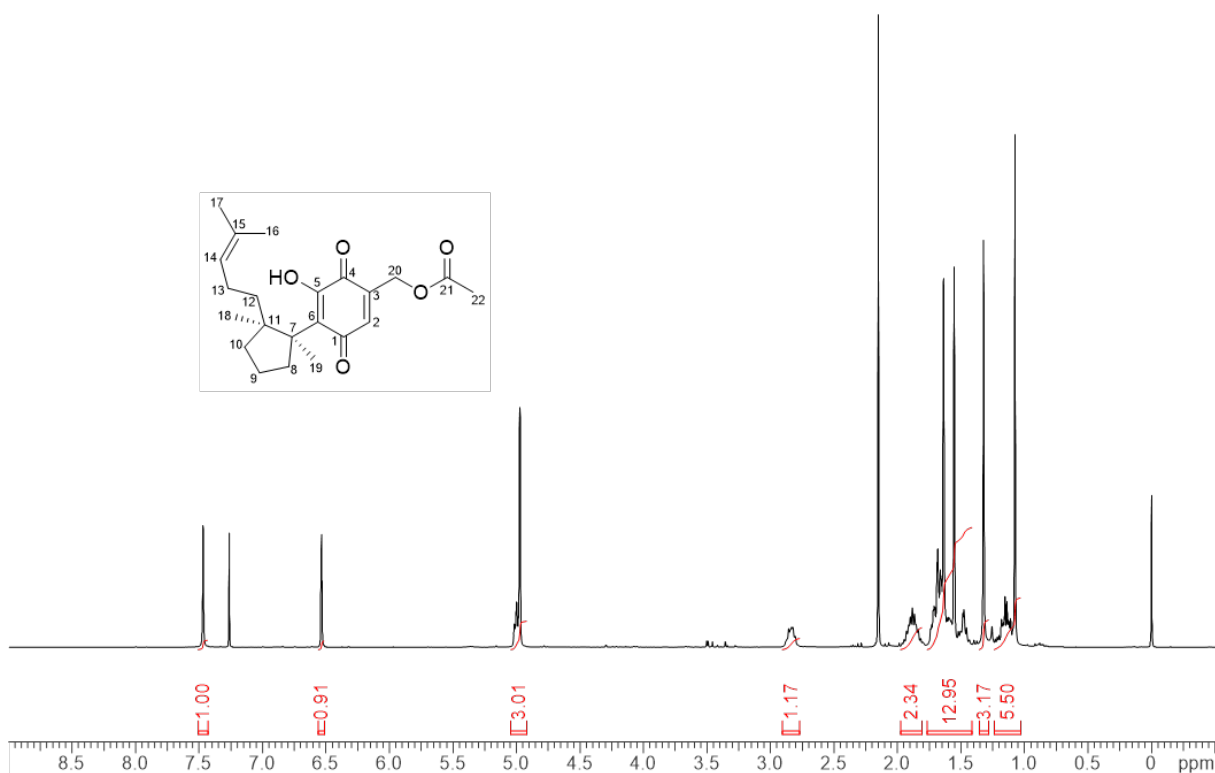


Figure S3. ^1H NMR spectrum (600 MHz, CDCl_3) of steglichon (**1**).

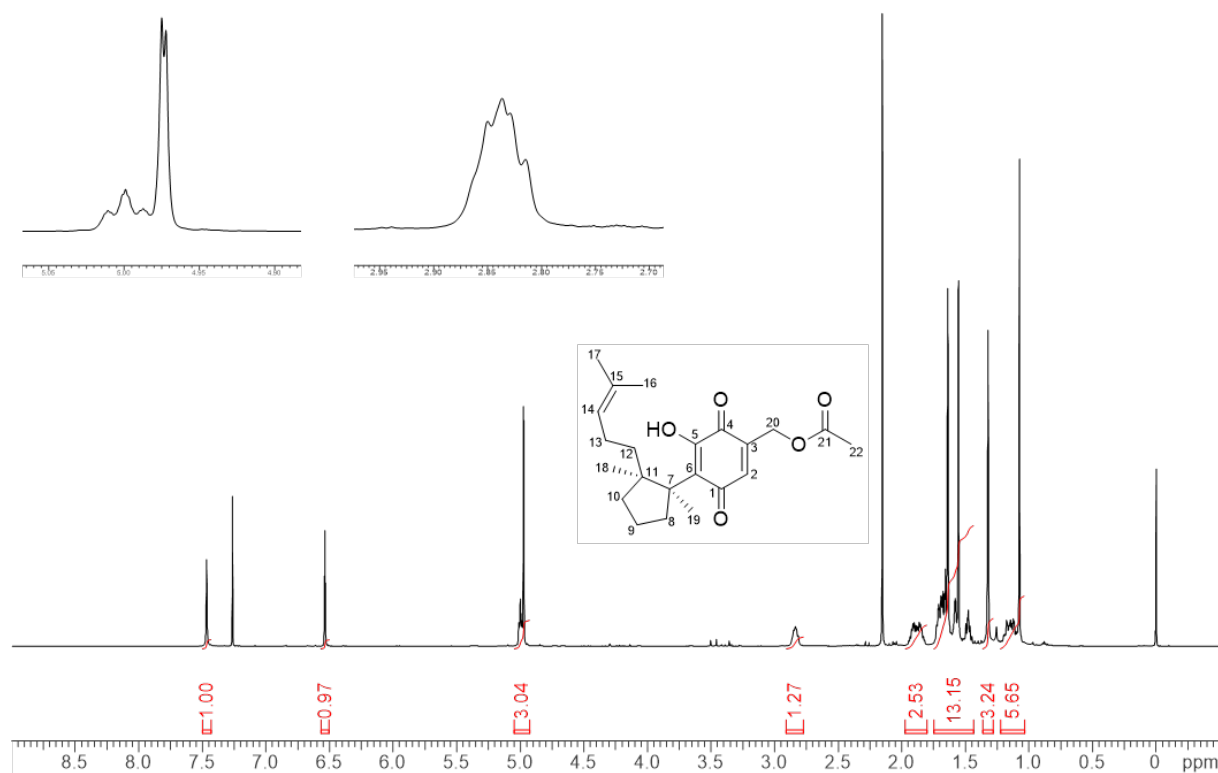


Figure S4. ^{13}C NMR spectrum (100 MHz, CDCl_3) of steglichon (**1**).

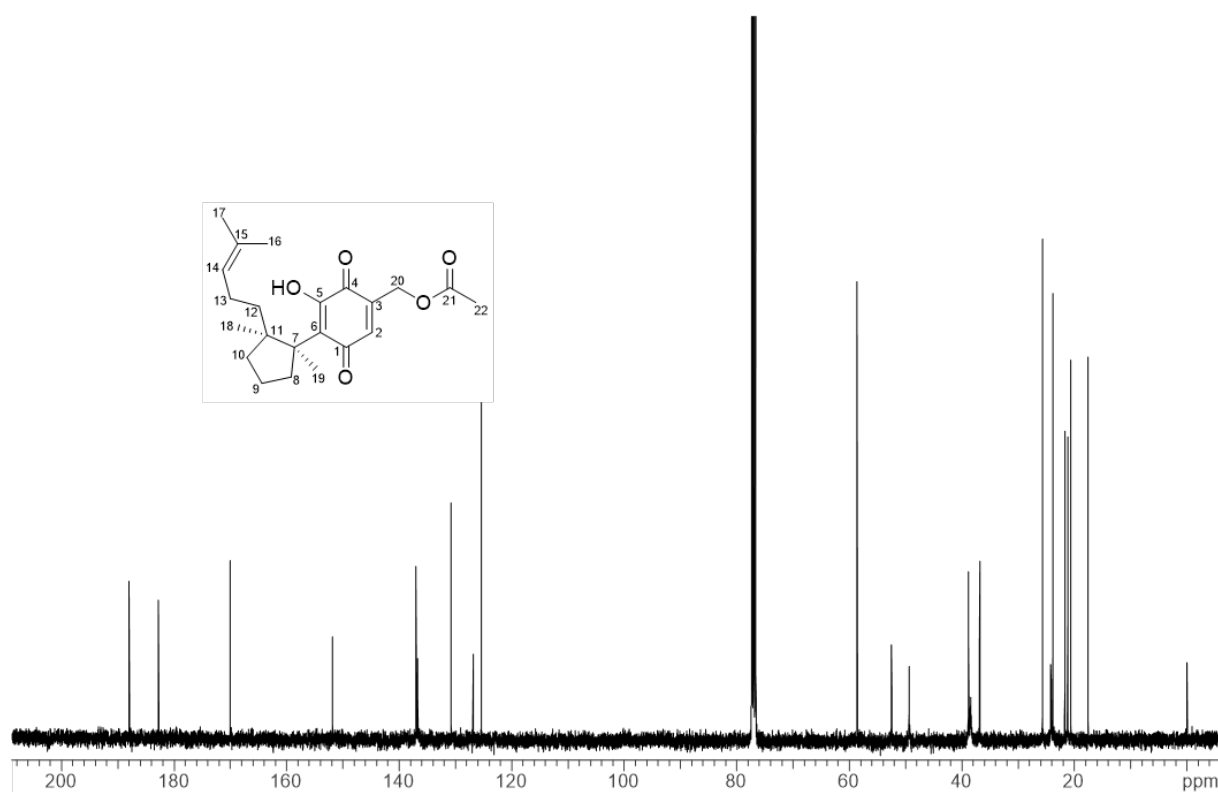


Figure S5. DEPT spectrum (100 MHz, CDCl₃) of steglichon (**1**).

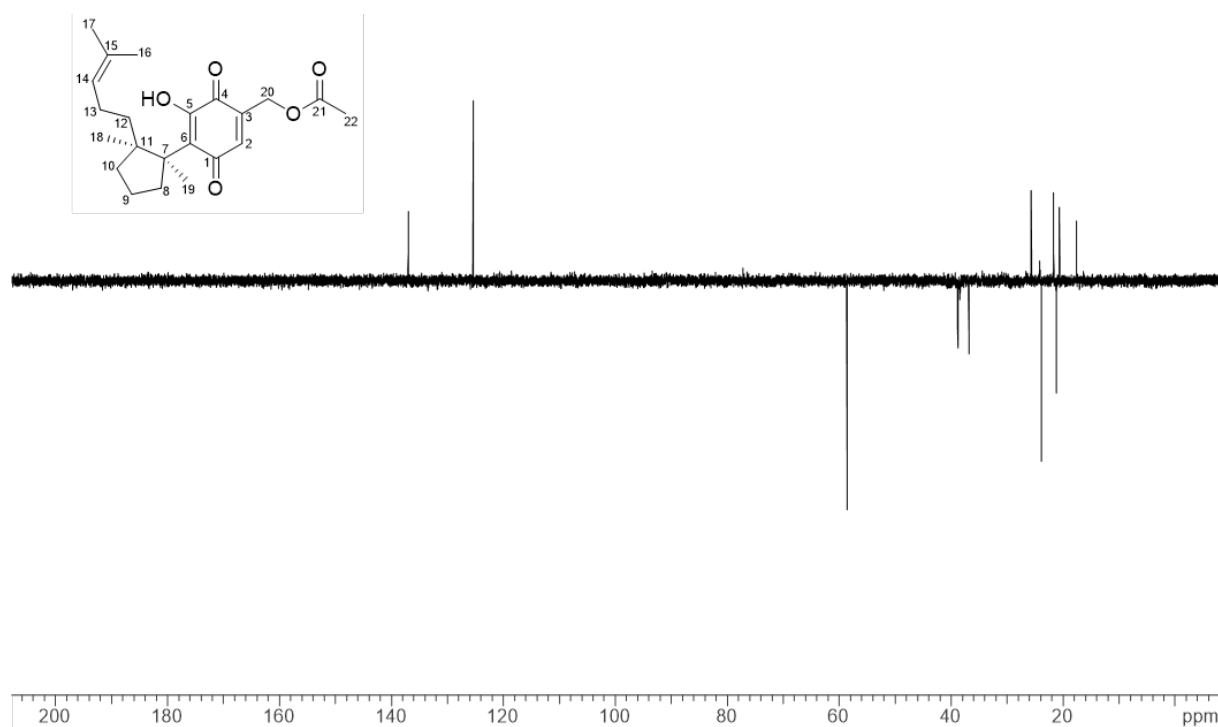


Figure S6. HSQC spectrum (400/100 MHz, CDCl₃) of steglichon (**1**).

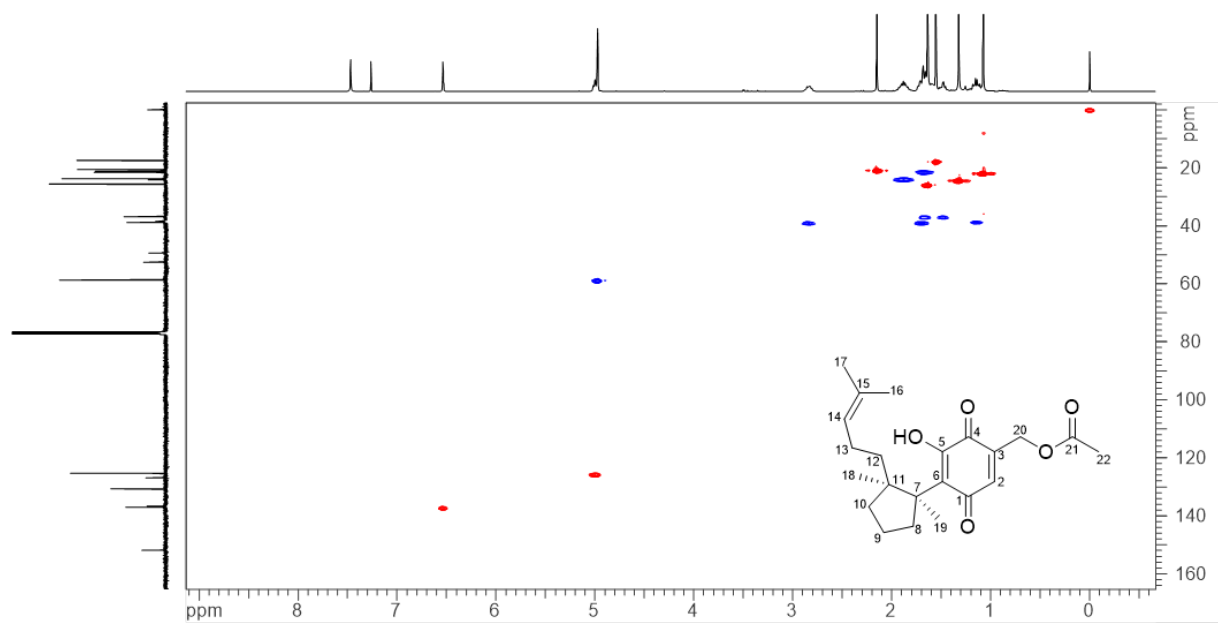


Figure S7. HMBC spectrum (600/150 MHz, CDCl₃) of steglichon (**1**).

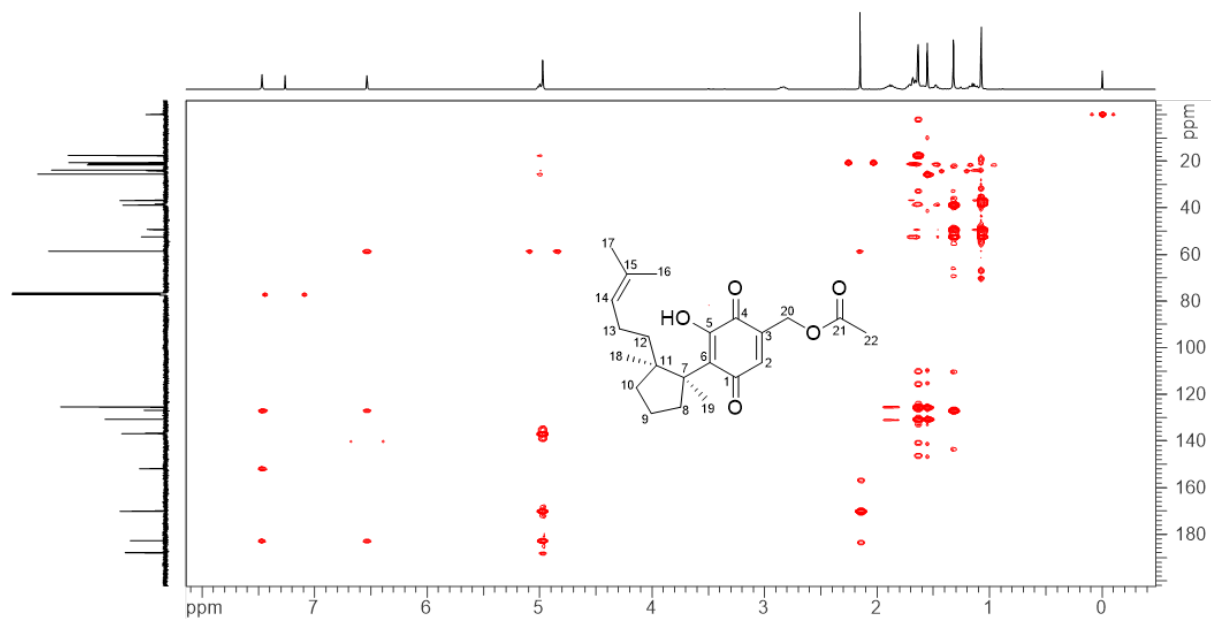


Figure S8. COSY spectrum (400 MHz, CDCl₃) of steglichon (**1**).

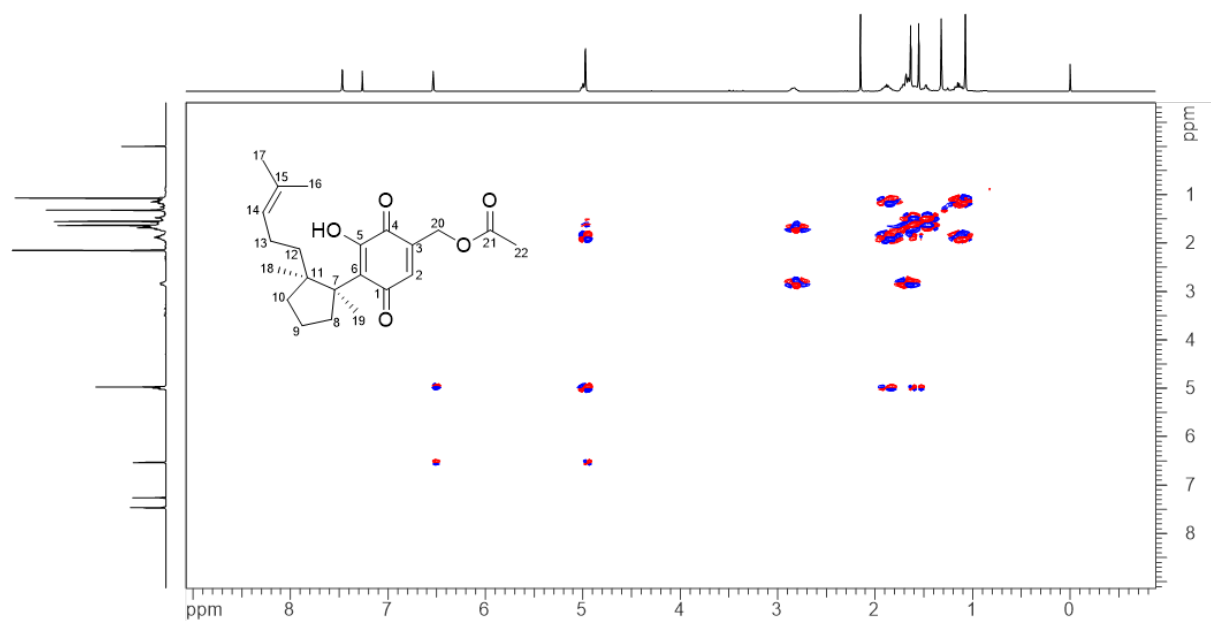


Figure S9. TOCSY spectrum (400 MHz, CDCl_3) of steglichon (**1**).

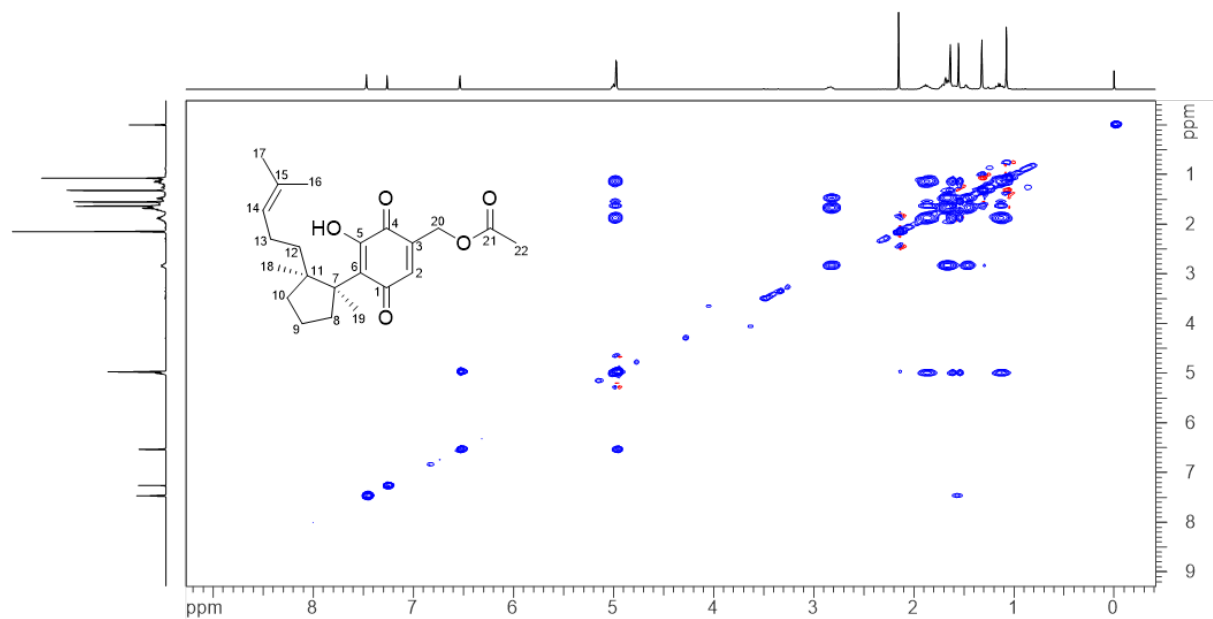


Figure S10. NOESY spectrum (400 MHz, CDCl_3) of steglichon (**1**).

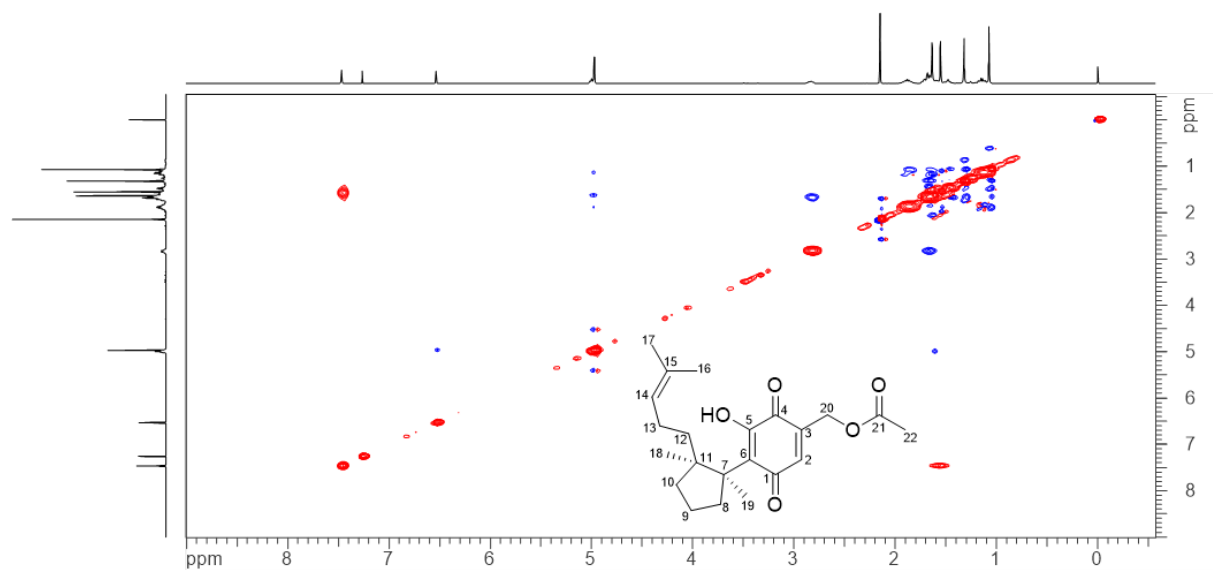


Figure S11. UV (MeOH) spectrum of steglichon (**1**).

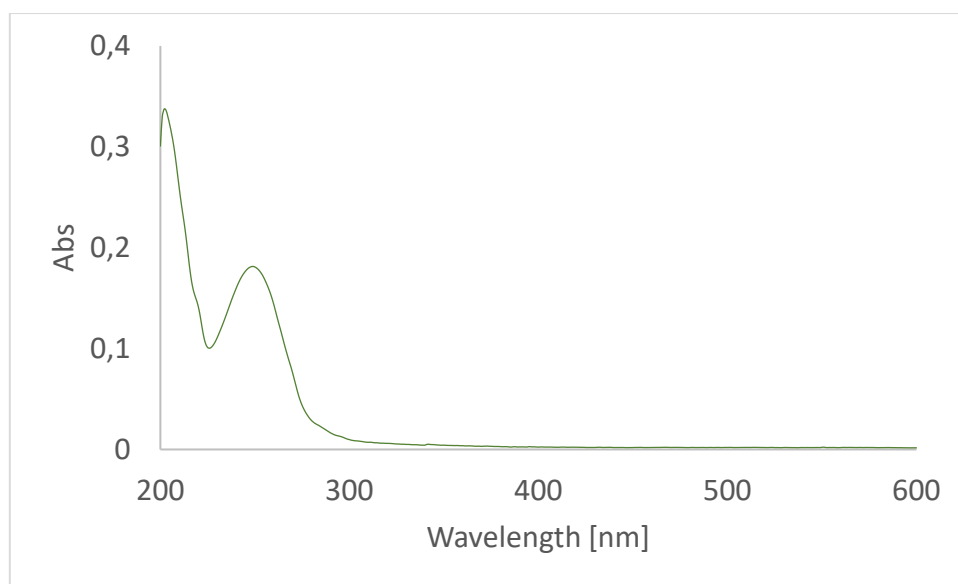


Figure S12. Color reaction of steglichon (**1**) on TLC with 10% KOH.

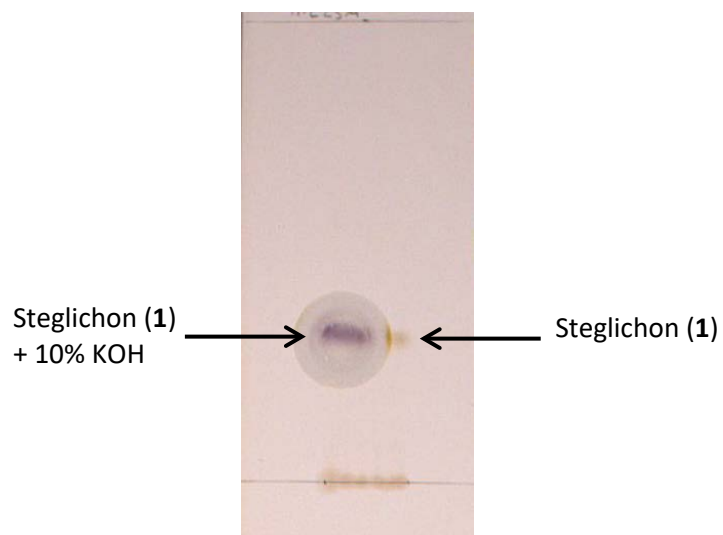


Figure S13. Phylogenetic relationship (Bayesian consensus tree) of *Cortinarius steglichii* based on the combined analysis of *RPB1*, ITS and LSU sequences. Bayesian Posterior Probabilities (%) are provided besides nodes. Sequences generated from the new species presented are written in bold.

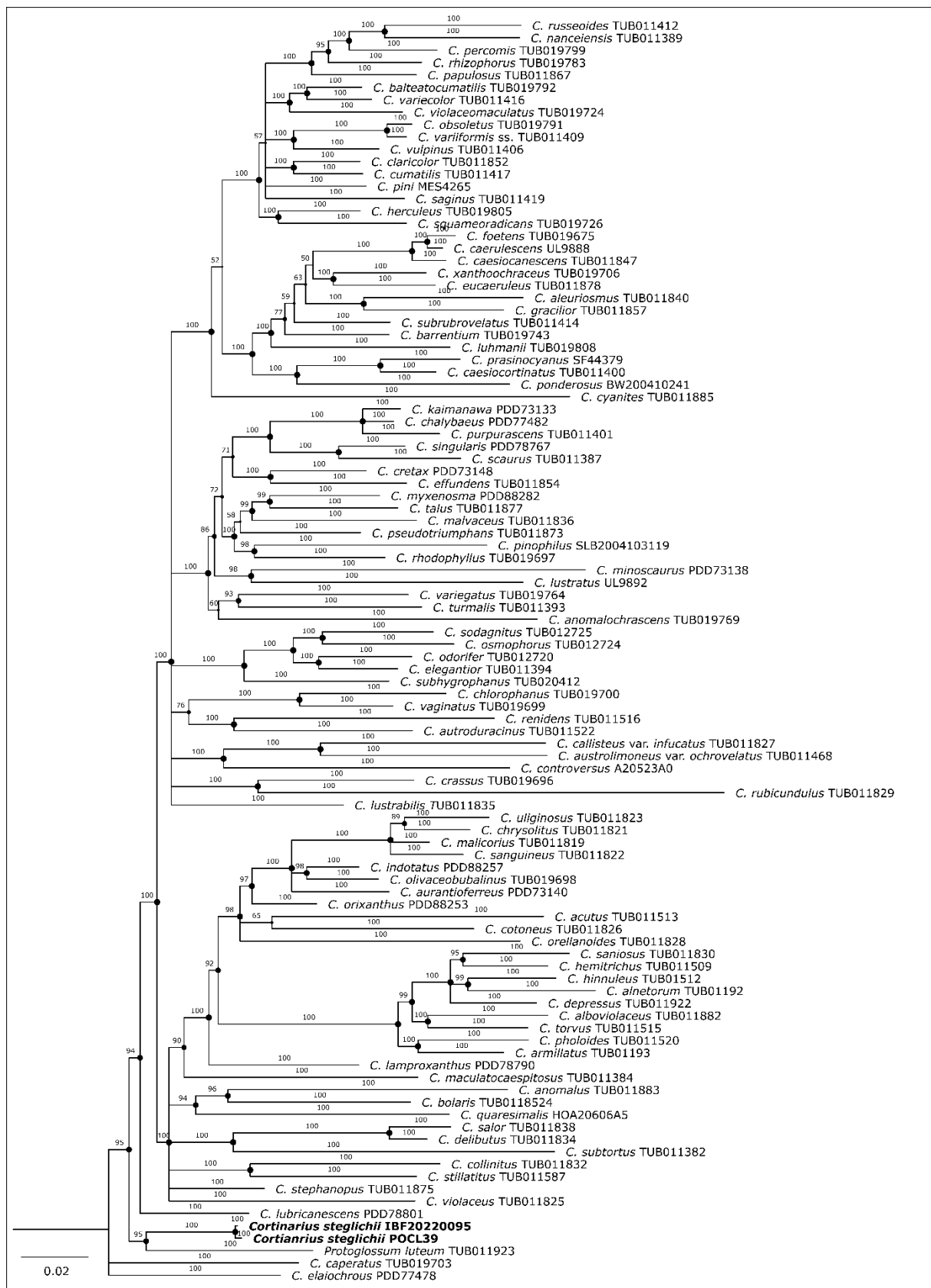


Table S1. Genbank accession numbers and collection information's for the material used for phylogeny.

Voucher Nr.		Name	Genbank ITS/LSU/RPB1	Date	Country	Region	Habitat	Ecological data
CONCF2196 Holotype	IBF20220095 Isotype	<i>Cortinarius steglichii</i>	PP848177/PP848172/PP864360	21.05.2022	Chile	Cordillera de Nahuelbuta, ascent to Trongol Alto	on soil	<i>Nothofagus dombeyi</i>
IBF20220071		<i>Cortinarius steglichii</i>	PP848179	18.05.2022	Chile	Bío-Bío, Cañete	on soil	<i>Nothofagus dombeyi</i>
IPB-CH 62/2018		<i>Cortinarius steglichii</i>	PP848176	28.05.2018	Chile	Cordillera de Nahuelbuta, ascent to Trongol Alt	on soil	<i>Nothofagus dombeyi</i>
CONCF2171		<i>Cortinarius steglichii</i>	PP848178	10.06.2023	Chile	Cordillera de Nahuelbuta, ascent to Trongol Alto	on soil	<i>Nothofagus dombeyi</i>
IPB-CH 13/2019	IBF20190018	<i>Cortinarius steglichii</i>	PP848175	27.05.2019	Chile	Cordillera de Nahuelbuta, ascent to Trongol Alto	on soil	<i>Nothofagus dombeyi</i>
CONCF2083	POCL39	<i>Cortinarius steglichii</i>	PP848181/PP848173/PP864361	11.06.2022	Chile	Cordillera de Nahuelbuta, ascent to Trongol Alto	on soil	<i>Nothofagus dombeyi</i>
CONCF2110	POCL41	<i>Cortinarius steglichii</i>	PP848182	18.06.2022	Chile	Cordillera de Nahuelbuta, ascent to Trongol Alto	on soil	<i>Nothofagus dombeyi</i>
IPB-CH 81/2019		<i>Cortinarius steglichii</i>	PP848180	18.06.2019	Chile	Cordillera de Nahuelbuta, ascent to Trongol Alto	on soil	<i>Nothofagus dombeyi</i>
CONCF1849	IBF20190017	<i>Cortinarius steglichii</i>	PP848174	01.05.2018	Chile	Cordillera de Nahuelbuta, Caramahuida	on soil	<i>Nothofagus dombeyi</i>