

Table S1. New isolated isoquinoline alkaloids between 2019 to 2023

No.	Names	Species	Ref.
Simple isoquinoline alkaloids			
1	Mucroniferanine M	<i>Corydalis mucronifera</i>	21
2	1-(6-Hydroxy-7-methylisoquinolin-1-yl) ethantone	<i>Thalictrum glandulosissimum</i>	22
3	Litcubanine A	<i>Litsea cubeba</i>	23
4	Dehydrothalflavine	<i>Thalictrum cultratum</i> <i>T. baicalense</i>	24
5	(aS)-7,8-dimethoxy-9-(2-carboxy-4,5- dimethoxyphenyl)-3,4-dihydroisoquinoline- 1(2H)-one	<i>Aconitum carmichaelii</i>	24
6	Bungeanoline D	<i>Corydalis bungeana</i>	26
7	6-Methylisoquinoline	<i>Agaricus bisporus</i>	20
8	TMC-120A	<i>Aspergillus insuetus</i>	30
9	TMC-120B	<i>Aspergillus insuetus</i>	30
10	TMC-120 C	<i>Aspergillus insuetus</i>	30
11	Methyl O-demethylrenierate	<i>Haliclona sp.</i>	31
12	O-demethylrenierol	<i>Haliclona sp.</i>	31
13	1,6-dimethyl-7-hydroxy-5,8-dihydroisoquinoline-	<i>Haliclona sp.</i>	31

5,8-dione

14	Spathullin A	<i>Penicillium spathulatum</i> Em19	32
15	Spathullin B	<i>Penicillium spathulatum</i> Em19	32
16	Mansouramycin F	<i>Streptomyces</i> sp. isolate B1848	33
17	Puniceusine A	<i>Aspergillus puniceus</i> SCSIO z021	34
18	Puniceusine B	<i>Aspergillus puniceus</i> SCSIO z021	34
19	Puniceusine C	<i>Aspergillus puniceus</i> SCSIO z021	34
20	Puniceusine D	<i>Aspergillus puniceus</i> SCSIO z021	34
21	Puniceusine E	<i>Aspergillus puniceus</i> SCSIO z021	34
22	Puniceusine F	<i>Aspergillus puniceus</i> SCSIO z021	34
23	Puniceusine G	<i>Aspergillus puniceus</i> SCSIO z021	34
24	Puniceusine H	<i>Aspergillus puniceus</i> SCSIO z021	34
25	Puniceusine I	<i>Aspergillus puniceus</i> SCSIO z021	34
26	Puniceusine J	<i>Aspergillus puniceus</i> SCSIO z021	34
27	Puniceusine K	<i>Aspergillus puniceus</i> SCSIO z021	34
28	Puniceusine L	<i>Aspergillus puniceus</i> SCSIO z021	34
29	Puniceusine M	<i>Aspergillus puniceus</i> SCSIO z021	34
30	Puniceusine N	<i>Aspergillus puniceus</i> SCSIO z021	34

Benzylisoquinoline alkaloids

31	<i>N,O</i> -dimethylcocclaurine <i>N</i> -oxide	<i>Annona salzmannii</i>	36
32	Linderine A	<i>Lindera aggregata</i>	37
33	(+)- <i>O,O</i> -dimethylautumnaline	<i>Lindera aggregata</i>	38
34	Phellodendronoside A	<i>Phellodendron chinense</i>	39
35	Hypepontine	<i>Hypecoum ponticum</i>	40
36	Hypecocarpinine	<i>Hypecoum ponticum</i>	41
37	3,4-2H-tomentelline C	<i>Corydalis tomentella</i>	42
38	9-Demethylmucroniferanine A	<i>Corydalis hendersonii</i>	43
39	Hendersine B ethyl ester	<i>Corydalis hendersonii</i>	43
40	Yanhusanine C	<i>Corydalis yanhusuo</i>	44
41	Yanhusanine D	<i>Corydalis yanhusuo</i>	44
42	Yanhusanine E	<i>Corydalis yanhusuo</i>	44
43	Mucroniferanine I	<i>Corydalis mucronifera</i>	45
44	Mucroniferanine J	<i>Corydalis mucronifera</i>	45
45	Bracteatinine	<i>Corydalis bracteata</i>	46
46	Edulisine J	<i>Corydalis edulis</i>	47
47	Edulisine C	<i>Corydalis edulis</i>	47
48	Edulisine K	<i>Corydalis edulis</i>	47
49	5,6,7,12-Tetramethoxy-2-methyl-13-hydroxy-11-(4'-methoxycarbonylphenoxy)-	<i>Thalictrum foliolosum</i>	48

	benzylisoquinoline		
50	5,6,7,12-Tetramethoxy-2-methyl-13-hydroxy-11-(4'-carbonylphenoxy)benzylisoquinoline	<i>Thalictrum foliolosum</i>	48
51	Baicalensine B	<i>Thalictrum baicalense</i>	49
52	Dehydro-oxonorreticuline (3,4-dihydro-7-hydroxy-6-methoxy-1-isoquinoliny) (3-hydroxy-4-methoxyphenyl)-methanone)	<i>Diclinanona calycina</i>	50
53	Menisperdaurine A	<i>Menispermum dauricum</i>	51
54	Menisperdaurine B	<i>Menispermum dauricum</i>	51
55	Menisperdaurine C	<i>Menispermum dauricum</i>	51
56	Menisperdaurine D	<i>Menispermum dauricum</i>	51
57	Menisperdaurine E	<i>Menispermum dauricum</i>	51
58	Menisperdaurine F	<i>Menispermum dauricum</i>	51
59	Menisperdaurine G	<i>Menispermum dauricum</i>	51
60	Menisperdaurine H	<i>Menispermum dauricum</i>	51
61	Menisperdaurine I	<i>Menispermum dauricum</i>	51
62	Menisperdaurine J	<i>Menispermum dauricum</i>	51
63	Menisperdaurine K	<i>Menispermum dauricum</i>	51
64	Menisperdaurine L	<i>Menispermum dauricum</i>	51
65	Menisperdaurine M	<i>Menispermum dauricum</i>	51

66	Menisperdaurine N	<i>Menispermum dauricum</i>	51
67	Menisperdaurine O	<i>Menispermum dauricum</i>	51
68	Menisperdaurine P	<i>Menispermum dauricum</i>	51
69	Menisperdaurine Q	<i>Menispermum dauricum</i>	51
70	(6a <i>S</i> ,1' <i>R</i>)-Apormenidaurine A	<i>Menispermum dauricum</i>	52
71	(6a <i>S</i> ,1' <i>S</i>)-Apormenidaurine B	<i>Menispermum dauricum</i>	52
72	Murarinine	<i>Berberis vulgaris</i>	53
73	(1 <i>R</i> , 1' <i>R</i>) isoliensinine <i>N'</i> -oxide	<i>Plumula nelumbinis</i>	54
74	(1 <i>R</i> , 1' <i>R</i>) isoliensinine <i>N</i> -oxide	<i>Plumula nelumbinis</i>	54
75	(1 <i>R</i> , 1' <i>R</i>) liensinine <i>N'</i> -oxide	<i>Plumula nelumbinis</i>	54
76	(1 <i>R</i> , 1' <i>R</i>) neferine <i>N</i> -oxide	<i>Plumula nelumbinis</i>	54
77	Sinotumitones A	<i>Sinomenium acutum</i>	55
78	Sinotumitone B	<i>Sinomenium acutum</i>	55
79	(<i>S</i>)-1,2,3,4-tetrahydro-7-methoxy-8-hydroxy-2-methyl-13-methoxybenzylisoquinoline	<i>Fissistigma polyanthum</i>	56
80	Bersavine	<i>Berberis vulgaris</i>	53
81	Berbostrejdine	<i>Berberis vulgaris</i>	53
82	13-Nitrochondrofoline	<i>Berberis brevissima</i>	57
83	(1 <i>R</i> ,1' <i>S</i>)- <i>N</i> -formylcepharanthine	<i>Stephania cepharantha</i>	58
84	(1 <i>R</i> ,1' <i>S</i>)- <i>N</i> -formylisotetrandrine	<i>Stephania cepharantha</i>	58

85	Mucroniferanine L	<i>Corydalis mucronifera</i>	45
86	(1' <i>R</i>)-Pavermenidaurine	<i>Menispermum dauricum</i>	52
87	(1 <i>R</i> , 1' <i>R</i>)-Dauricisoline H	<i>Menispermum dauricum</i>	52
88	(1 <i>R</i> , 1' <i>R</i>)-Dauricisoline I	<i>Menispermum dauricum</i>	52
89	(1 <i>R</i> , 1' <i>R</i>)-Dauricisoline	<i>Menispermum dauricum</i>	52
90	Yanhusanine A	<i>Corydalis yanhusuo</i>	44
91	(±)-Hypeisoxazole A	<i>Hypecoum erectum</i>	59
92	Chelidoniumine A	<i>Hylomecon japonica</i>	60
93	(13 <i>S</i> ,14 <i>S</i>)-tomentelline E	<i>Corydalis tomentella</i>	61
Aporphine isoquinoline alkaloids			
94	9-(2'-Formyl-5',6'-dimethoxyphenoxy)-1,2,3,10-tetramethoxy dehydroaporphine	<i>Thalictrum foetidum</i>	64
95	(-)-9-(2'-Methoxycarbonyl-5',6'-dimethoxyphenoxy)-1,2,3,10-tetramethoxy aporphine	<i>Thalictrum foetidum</i>	64
96	(-)-2'-Methoxycarbonyl thaliadin	<i>Thalictrum foetidum</i>	64
97	(-)-9-(2'-Methoxyethyl-5', dimethoxyphenoxy)-1,2,3,10-tetramethoxy aporphine	6'- <i>Thalictrum foetidum</i>	64
98	(-)-3-Methoxy hydroxyhernandalinol	<i>Thalictrum foetidum</i>	64

99	3-Methoxy-8-(4'-hydroxymethylphenoxy)glaucine	<i>Thalictrum tenue</i>	65
100	6a <i>S</i> -1,10-dimethoxy-natalamine	<i>Thalictrum tenue</i>	65
101	(-)-Anolobine-9-O- β -D-glucopyranoside	<i>Asimina triloba</i>	66
102	6 <i>R</i> ,6a <i>S</i> - <i>N</i> -nantenine N $_{\beta}$ -oxide	<i>Nandina domestica</i>	67
103	6 <i>S</i> ,6a <i>S</i> - <i>N</i> -nantenine N $_{\alpha}$ -oxide	<i>Nandina domestica</i>	67
104	Corybungine F	<i>Corydalis bungeana</i>	26
105	Corybungine G	<i>Corydalis bungeana</i>	26
106	Corybungine H	<i>Corydalis bungeana</i>	26
107	Corybungine I	<i>Corydalis bungeana</i>	26
108	Corybungine J	<i>Corydalis bungeana</i>	26
109	Corybungine K	<i>Corydalis bungeana</i>	26
110	(<i>R</i>)-1,2-methylenedioxy-9-methoxy-11-hydroxyaporphine	<i>Fissistigma polyanthum</i>	56
111	(6 <i>S</i> ,6a <i>R</i>)- <i>N</i> -methylcalycinine-N $_{\alpha}$ -oxide	<i>Fissistigma polyanthum</i>	56
112	(6 <i>R</i> ,6a <i>R</i>)- <i>N</i> -methylcalycinine-N $_{\beta}$ -oxide	<i>Fissistigma polyanthum</i>	56
113	3-Methoxy-2'-carbonyl-oxohernandalin	<i>Thalictrum tenue</i>	65
114	9-(2'-Formyl-5',6'-dimethoxyphenoxy)-1,2,3,10-tetramethoxy oxoaporphine	<i>Thalictrum foetidum</i>	64
115	3-Methoxy-2'-formyl oxohernandalin	<i>Thalictrum foetidum</i>	64

116	Aporaloid A	<i>Fissistigma glaucescens</i>	68
117	Aporaloid B	<i>Fissistigma glaucescens</i>	68
118	3-Methoxy-10- <i>O</i> -acetylprodensiflorin B	<i>Thalictrum foliolosum</i>	51
119	Duguetinine	<i>Duguetia surinamensis</i>	69
120	Duguesuramine	<i>Duguetia surinamensis</i>	69
121	11-Methoxyduguesuramine	<i>Duguetia surinamensis</i>	69
122	(<i>S</i>)-2,3,12,12a-tetrahydro-5,6,9,10-tetramethoxy-1-methyl-1 <i>H</i> -[1]benzoxepino[2,3,4- <i>ij</i>]-isoquinoline	<i>Stephania cepharantha</i>	70
123	8,9-dimethoxylettowianthine	<i>Fissistigma polyanthum</i>	56
Berberine and protoberberine isoquinoline alkaloids			
124	Mucroniferanine H	<i>Corydalis mucronifera</i>	45
125	Hendersine G	<i>Corydalis hendersonii</i>	71
126	Yanhusanine F	<i>Corydalis yanhusuo</i>	44
127	Baicalensine A	<i>Thalictrum baicalense</i>	49
128	(8 <i>R</i> ,13 <i>R</i> ,14 <i>R</i>)-8-methoxycarbonylmethyl thalictrifoline	<i>Corydalis tomentella</i>	61
129	(13 <i>R</i> ,14 <i>R</i>)-13-hydroxy-13-methyl-8-oxosinactine	<i>Corydalis tomentella</i>	61
130	Tomentelline F	<i>Corydalis tomentella</i>	61
131	Isotomentelline F	<i>Corydalis tomentella</i>	61

132	13 <i>R</i> -tomentelline	<i>Corydalis tomentella</i>	42
133	Corybungine A	<i>Corydalis bungeana</i>	72
134	Corybungine B	<i>Corydalis bungeana</i>	72
135	Corybungine C	<i>Corydalis bungeana</i>	72
136	Corybungine D	<i>Corydalis bungeana</i>	72
137	Corybungine E	<i>Corydalis bungeana</i>	72
138	(±)-Decumicorine A	<i>Corydalis decumbens</i>	73
139	(±)- <i>epi</i> -Decumicorine A	<i>Corydalis decumbens</i>	73
140	Corydalisine A	<i>Corydalis saxicola</i>	74
141	Corydalisine B	<i>Corydalis saxicola</i>	74
142	Isogroenlandicine	<i>Corydalis bracteata</i>	46
143	Edulisine A	<i>Corydalis edulis</i>	47
144	Leptocaramine	<i>Hypecoum leptocarpum</i>	41
145	Menisperdaurine R	<i>Menispermum dauricum</i>	51
146	Menisperdaurine S	<i>Menispermum dauricum</i>	51
147	Menisperdaurine T	<i>Menispermum dauricum</i>	51
148	Menisperdaurine U	<i>Menispermum dauricum</i>	51
149	Menisperdaurine V	<i>Menispermum dauricum</i>	51
150	(7 <i>R</i> ,14 <i>S</i>)- <i>N</i> -methylthaipetaline hydroxide	<i>Fissistigma polyanthum</i>	56

Naphthylisoquinoline alkaloids

151	Ealamine A	<i>Ancistrocladus ealaensis</i>	90
152	Ealamine B	<i>Ancistrocladus ealaensis</i>	90
153	Ealamine C	<i>Ancistrocladus ealaensis</i>	90
154	Ealamine D	<i>Ancistrocladus ealaensis</i>	90
155	Ealamine E	<i>Ancistrocladus ealaensis</i>	90
156	Ealamine F	<i>Ancistrocladus ealaensis</i>	90
157	Ealamine G	<i>Ancistrocladus ealaensis</i>	90
158	Ealamine H	<i>Ancistrocladus ealaensis</i>	90
159	Ancistrobreveine A	<i>Ancistrocladus abbreviatus</i>	91
160	Ancistrobreveine B	<i>Ancistrocladus abbreviatus</i>	91
161	Ancistrobreveine C	<i>Ancistrocladus abbreviatus</i>	91
162	Ancistrobreveine D	<i>Ancistrocladus abbreviatus</i>	91
163	Ancistrosecoline A	<i>Ancistrocladus abbreviatus</i>	92
164	Ancistrosecoline B	<i>Ancistrocladus abbreviatus</i>	92
165	Ancistrosecoline C	<i>Ancistrocladus abbreviatus</i>	92
166	Ancistrosecoline D	<i>Ancistrocladus abbreviatus</i>	92
167	Ancistrosecoline E	<i>Ancistrocladus abbreviatus</i>	92
168	Ancistrosecoline F	<i>Ancistrocladus abbreviatus</i>	92

169	1- <i>nor</i> -8-O-demethylancistrobrevine H	<i>Ancistrocladus abbreviatus</i>	92
170	Ancistrobrevinium A	<i>A. abbreviatus</i>	93
171	Ikelacongoline A	<i>Ancistrocladus korupensis</i> <i>A. ealaensis</i>	94
172	Ikelacongoline B	<i>Ancistrocladus korupensis</i> <i>A. ealaensis</i>	94
173	Ikelacongoline C	<i>Ancistrocladus korupensis</i> <i>A. ealaensis</i>	94
174	Ikelacongoline D	<i>Ancistrocladus korupensis</i> <i>A. ealaensis</i>	94
175	Mbandakamine B ₃	<i>Ancistrocladus korupensis</i> <i>A. ealaensis</i>	94
176	Mbandakamine B ₄	<i>Ancistrocladus korupensis</i> <i>A. ealaensis</i>	94
177	Cyclombandakamine A	<i>Ancistrocladus ealaensis</i>	95
178	1- <i>epi</i> -cyclombandakamine A	<i>Ancistrocladus ealaensis</i>	95
179	Cyclombandakamine A ₃	<i>Ancistrocladus ealaensis</i>	95
180	Cyclombandakamine A ₄	<i>Ancistrocladus ealaensis</i>	95
181	Cyclombandakamine A ₅	<i>Ancistrocladus ealaensis</i>	95
182	Cyclombandakamine A ₆	<i>Ancistrocladus ealaensis</i>	95
183	Cyclombandakamine A ₇	<i>Ancistrocladus ealaensis</i>	95

184	Spirombandakamine A ₃	Ancistrocladus plant	96
185	Cyclombandakamine A ₈	Ancistrocladus plant	96
186	Cyclombandakamine A ₉	Ancistrocladus plant	96
187	Jozibrevine A	<i>Ancistrocladus abbreviatus</i>	97
188	Jozibrevine B	<i>Ancistrocladus abbreviatus</i>	97
189	Jozibrevine C	<i>Ancistrocladus abbreviatus</i>	97
190	Ancistrobrevine K	<i>Ancistrocladus abbreviatus</i>	97
191	Ancistrobrevine L	<i>Ancistrocladus abbreviatus</i>	97
192	Ancistrobrevine M	<i>Ancistrocladus abbreviatus</i>	97
193	Dioncoline A	<i>Ancistrocladus abbreviatus</i>	97
Phenanthridine alkaloids			
194	Dehydroambiguanine A	<i>Corydalis</i> <i>ambigua</i> <i>subsp.</i>	78
		<i>amurensis</i>	
195	Ambiguanine J	<i>Corydalis</i> <i>ambigua</i> <i>subsp.</i>	78
		<i>amurensis</i>	
196	Bungeanoline A	<i>Menispermum dauricum</i>	51
197	Menisperdaurine W	<i>Menispermum dauricum</i>	51
198	Narciclasine-4-O- β -D-xylopyranoside	<i>Zephyranthes minuta</i>	97
199	6 <i>S/R</i> -(<i>N,N</i> -diethylacetamido)yl- dihydrochelerythrine	<i>Hylomecon japonica</i>	60

200	6 <i>R/S</i> -Acetonyl-9-hydroxy-dihydrochelerythrine	<i>Hylomecon japonica</i>	60
201	6 <i>S/R</i> -Acroleinyl-dihydrochelerythrine	<i>Hylomecon japonica</i>	60
202	6 <i>S/R</i> -Acetatemethyl-dihydrochelerythrine	<i>Hylomecon japonica</i>	60
203	6,10-Dimethoxydihydrochelerythrine	<i>Hylomecon japonica</i>	60
204	6-Ethoxy-ethaniminyl-dihydrochelandine	<i>Hylomecon japonica</i>	60
205	9-Hydroxy-dihydrochelerythrine	<i>Hylomecon japonica</i>	60
206	9-Methoxy-10-hydroxy-norchelerythrine	<i>Hylomecon japonica</i>	60
Morphine isoquinoline alkaloids			
207	(6 <i>S</i> ,7 <i>S</i> ,9 <i>R</i> ,13 <i>S</i>)-6,7-di- <i>O</i> -acetyl- <i>N</i> -formylsinococuline	<i>Stephania cepharantha</i>	58
208	(6 <i>S</i> ,7 <i>S</i> ,9 <i>R</i> ,13 <i>S</i>)- <i>N</i> -formylsinococuline	<i>Stephania cepharantha</i>	58
209	(6 <i>S</i> ,7 <i>S</i> ,9 <i>R</i> ,13 <i>S</i>)-6- <i>O</i> -acetyl- <i>N</i> -formylsinococuline	<i>Stephania cepharantha</i>	58
210	(6 <i>S</i> ,7 <i>S</i> ,9 <i>R</i> ,13 <i>S</i>)-7- <i>O</i> -acetyl- <i>N</i> -formylsinococuline	<i>Stephania cepharantha</i>	58
211	(6 <i>S</i> ,9 <i>S</i> ,13 <i>R</i> ,14 <i>S</i>)-6- <i>O</i> -acetyl-7,8-didehydro-4-hydroxy-3,7-dimethoxymorphinan-6-ol	<i>Stephania cepharantha</i>	70
212	Bungeanoline B	<i>Corydalis bungeana</i>	72
213	Sinotuminin A	<i>Sinomenium acutum</i>	55
214	Sinotuminin B	<i>Sinomenium acutum</i>	55
215	Sinotuminin C	<i>Sinomenium acutum</i>	55
216	Sinotuminin D	<i>Sinomenium acutum</i>	55

Phthalideisoquinoline alkaloids

217	Corydecumine B	<i>Corydalis decumbens</i>	101
218	Corydecumine C	<i>Corydalis decumbens</i>	101
219	Corydecumine D	<i>Corydalis decumbens</i>	101
220	Corydecumine E	<i>Corydalis decumbens</i>	101
221	Corydecumine F	<i>Corydalis decumbens</i>	101
222	Corydecumine G	<i>Corydalis decumbens</i>	101
223	Corybensine A	<i>Corydalis decumbens</i>	102
224	Corybensine B	<i>Corydalis decumbens</i>	102
225	Mucroniferanine K	<i>Corydalis mucronifera</i>	45
226	9S-Alkterlactone B	<i>Corydalis tomentella</i>	42
227	(1S, 9S)-1-hydroxy-9-methyl-corlumine	<i>Corydalis tomentella</i>	42
228	Edulisine B	<i>Corydalis edulis</i>	47
229	Edulisine D	<i>Corydalis edulis</i>	47
230	Edulisine E	<i>Corydalis edulis</i>	47
231	Edulisine F	<i>Corydalis edulis</i>	47

Various isoquinoline alkaloids

232	Gingantelline	<i>Crinum jagus</i>	103
233	Gigantellinine	<i>Crinum jagus</i>	103

234	Gigancrinine	<i>Crinum jagus</i>	103
235	Cryptowrayine A	<i>Cryptocarya wrayi</i>	104
236	Cryptowrayine B	<i>Cryptocarya wrayi</i>	104
204	Bungeanoline C	<i>Corydalis bungeana</i>	26
237	(1'R, 2'S)-coptichine B	<i>Corydalis tomentella</i>	42
238	Mahimbrine A	<i>Mahonia imbricata</i>	105
239	(+)-1-Demethylandrocin	<i>Androcymbium palaestinum</i>	38
240	(+)-O-Methylkreysigine-N-oxide	<i>Androcymbium palaestinum</i>	38
241	Lamellarin K-20-sulfate	<i>Didemnum ternerratum</i>	106
242	Lamellarin E-20-sulfate	<i>Didemnum ternerratum</i>	106
243	Lamellarin A3-20-sulfate	<i>Didemnum ternerratum</i>	106
244	Lamellarin B1-20-sulfate	<i>Didemnum ternerratum</i>	106
245	Lamellarin D-8-sulfate	<i>Didemnum ternerratum</i>	106
246	Lamellarin B2-20-sulfate	<i>Didemnum ternerratum</i>	106
247	Jorunnamycin A	<i>Xestospongia sp.</i>	107
248	Mansouramycin E	<i>Streptomyces sp.</i> isolate B1848	33
249	Mansouramycin G	<i>Streptomyces sp.</i> isolate B1848	33
250	21-Dehydroxyrenieramycin F	<i>Haliclona sp.</i>	31
251	Citronamine A	<i>Citronia astra</i>	108
