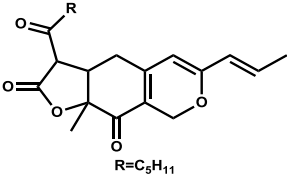
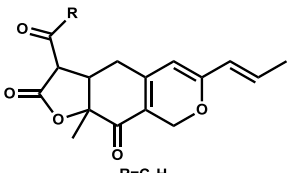
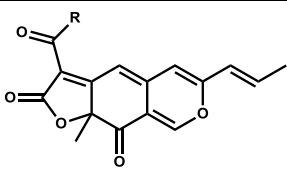
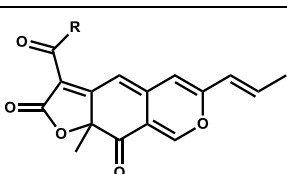
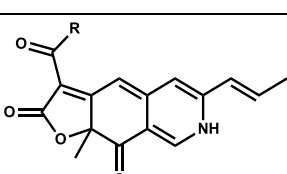
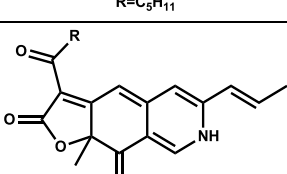
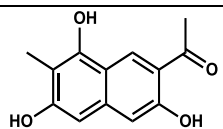
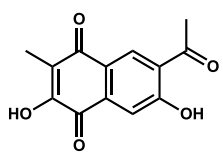
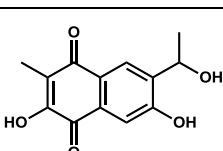
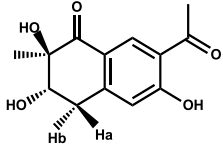
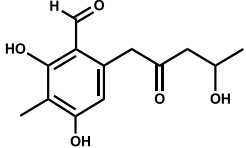
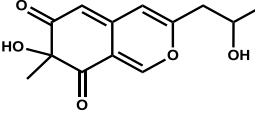
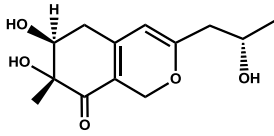
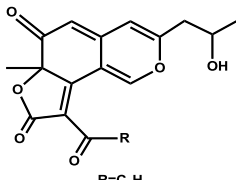
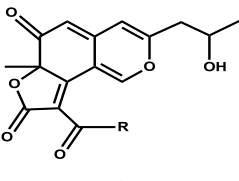
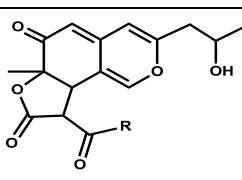
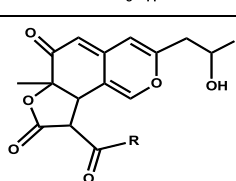
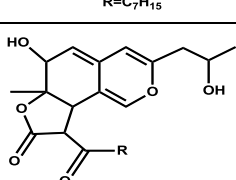
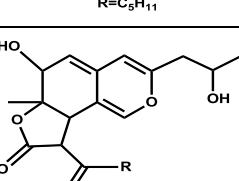
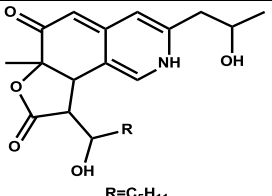
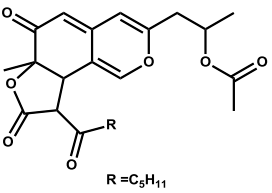
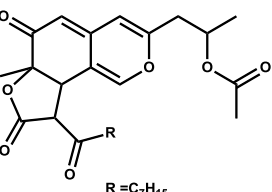
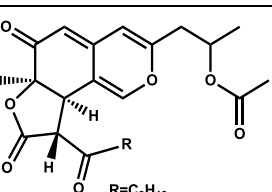
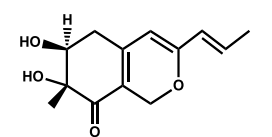
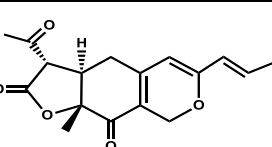
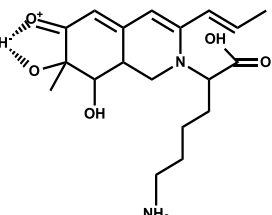
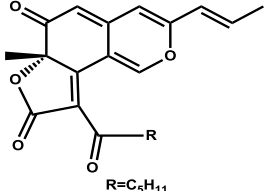
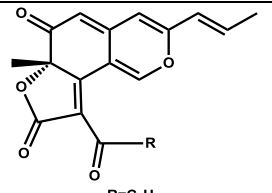
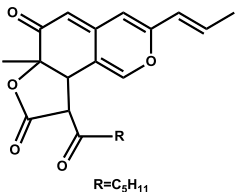
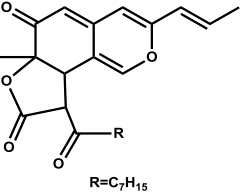
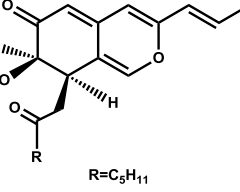
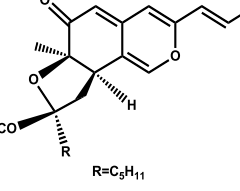
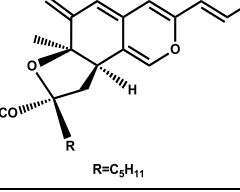
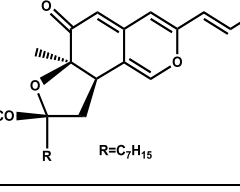
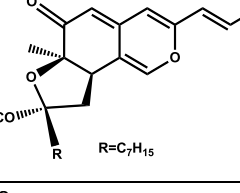
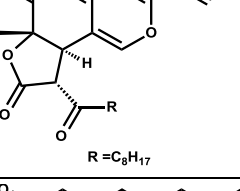
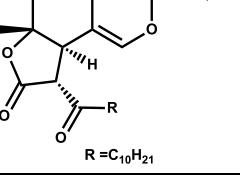


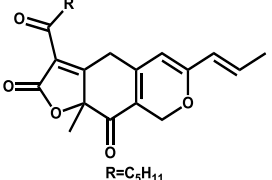
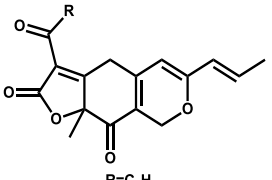
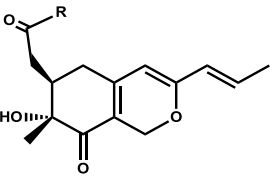
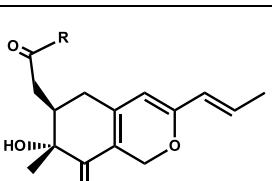
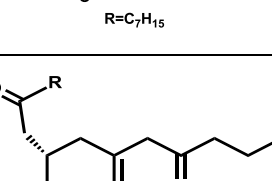
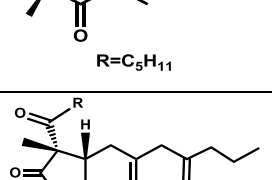
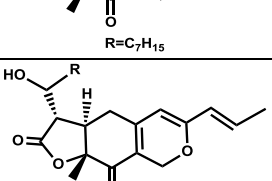
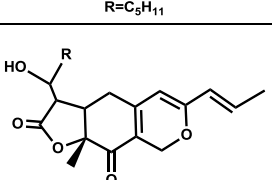
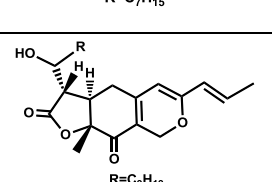
ESI Table 1. MonAzPs congeners described in the literatures

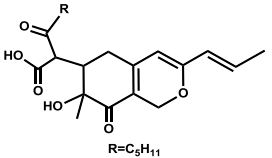
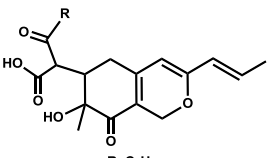
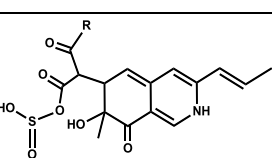
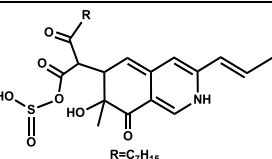
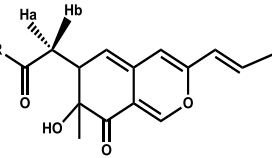
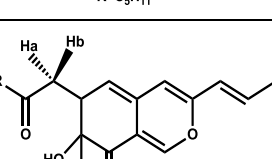
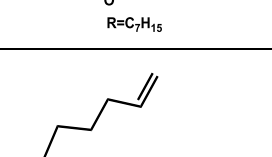
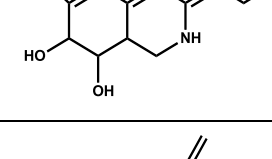
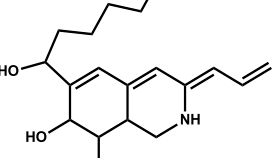
No.	Stage	Name	Color	MF*	MW*	Structure	Producer(s)	Ref.*
1	IV	Monascin	Yellow	$C_{21}H_{26}O_5$	358		<i>M. purpureus</i>	1, 2
2		Ankaflavin		$C_{23}H_{30}O_5$	386		<i>M. anka</i>	3
3		Rubropunctatin	Orange	$C_{21}H_{22}O_5$	354		<i>M. purpureus</i>	2
4		Monascorubrin		$C_{23}H_{26}O_5$	382			3
5		Rubropunctamine	Red	$C_{21}H_{23}NO_4$	353		<i>M. anka</i>	4, 5
6		Monascorubramine		$C_{23}H_{27}NO_4$	381			
7	I	MA-3	Yellow	$C_{13}H_{12}O_4$	232		<i>M. ruber</i> M7 and $\Delta mppA$ mutant of <i>M.</i> <i>purpureus</i>	6-9
8		MA-4		$C_{13}H_{10}O_5$	246			
9		MA-2		$C_{13}H_{12}O_5$	248			

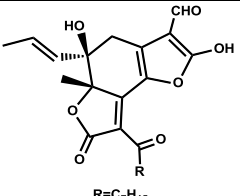
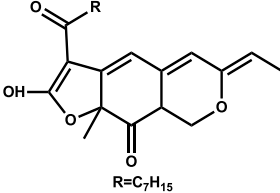
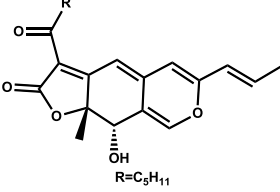
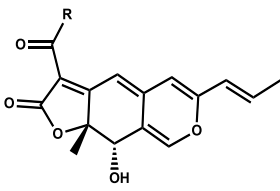
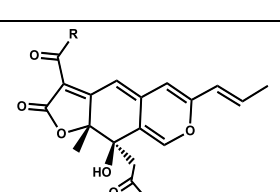
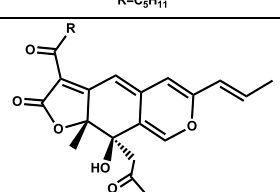
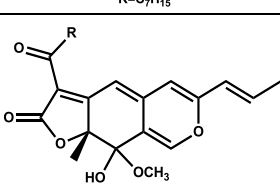
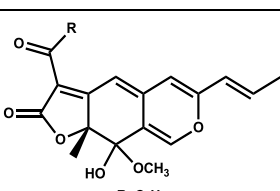
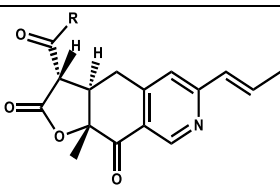
10		MA-1 (Monaspurpurone)	$C_{13}H_{14}O_5$	250		<i>M. purpureus</i> BCRC 38113	7
11		M7PKS-1	$C_{13}H_{16}O_5$	252		<i>M. ruber</i> M7	10
12	II	Unnamed	$C_{13}H_{14}O_5$	250			6
13		Monascusone A	$C_{13}H_{18}O_5$	254		<i>M. kaoliang</i> KB20M10.2	11
14	III	Unnamed	$C_{21}H_{24}O_6$	372		<i>M. ruber</i> M7	6
15			$C_{23}H_{28}O_6$	400			
16		Monasfluol A	$C_{21}H_{26}O_6$	374		<i>M. purpureus</i> IB1	12
17		Monasfluol B	$C_{23}H_{30}O_6$	402		$\Delta mpp7$ mutant of <i>M.</i> <i>purpureus</i>	13
18		Unnamed	$C_{21}H_{28}O_6$	376		<i>M. ruber</i> M7	6
19	$C_{23}H_{32}O_6$		404				

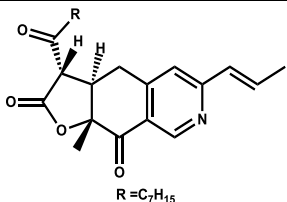
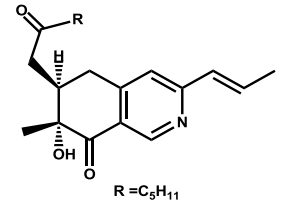
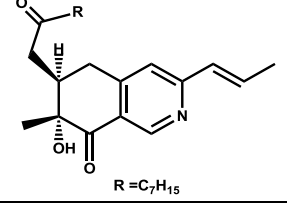
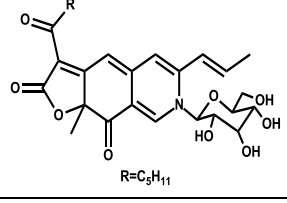
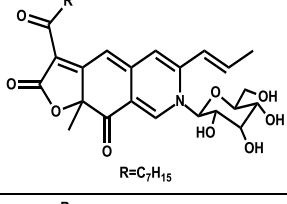
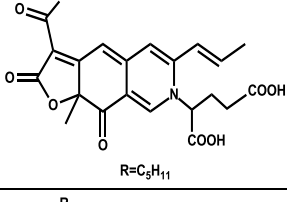
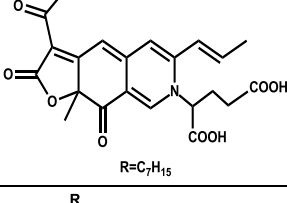
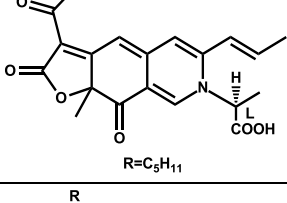
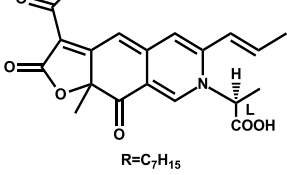
20		Red	$C_{21}H_{29}NO_5$	375		<i>M. purpureus</i> NFCCI 1756	14
21	Acetyl-monasfluol A	Yellow	$C_{23}H_{28}O_7$	416		<i>M. ruber</i> M7	6
22	Acetyl-monasfluol B		$C_{25}H_{32}O_7$	444			
23	Monascuskaolin		$C_{27}H_{36}O_7$	472		<i>M. kaoliang</i> BCRC 31506	15
24	FK17-P2B2		$C_{13}H_{16}O_4$	236		<i>M. kaoliang</i> KB20M10.2	11
25	Monascusone B		$C_{17}H_{18}O_5$	302			
26	Unnamed	Red	$C_{19}H_{28}N_2O_5$	364		<i>M. ruber</i> 102w	16
27	MC-2	Yellow	$C_{21}H_{22}O_5$	354		<i>mppc</i> mutant of <i>M. purpureus</i> KACC	8
28	MC-4		$C_{23}H_{26}O_5$	382			

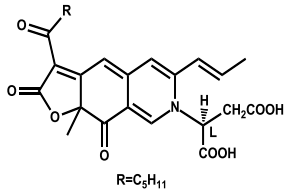
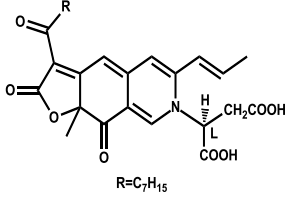
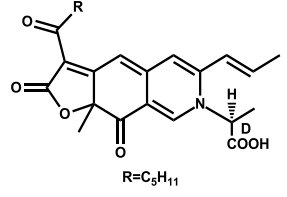
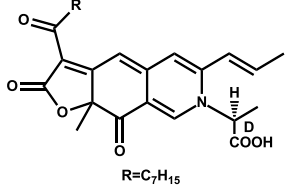
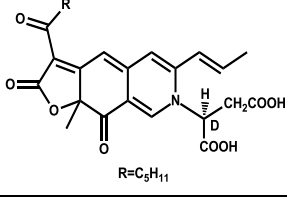
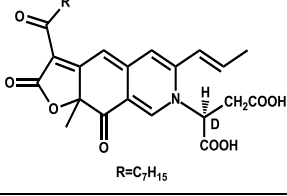
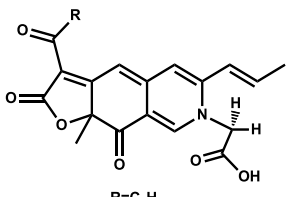
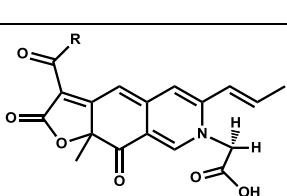
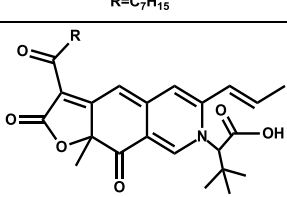
29	Monasfluore A	$C_{21}H_{24}O_5$	356		<i>Monascus</i> sp. AS3.4444	17
30	Monasfluore B	$C_{23}H_{28}O_5$	384			
31	Monapurone A	$C_{20}H_{26}O_4$	330		<i>M. purpureus</i> B0708	18
32	Monapurone B	$C_{21}H_{28}O_4$	344			
33	Monapurone C	$C_{21}H_{28}O_4$	344			
34	Monapurfluore A	$C_{23}H_{32}O_4$	372		<i>M. purpureus</i> NTU 568	19
35	Monapurfluore B	$C_{23}H_{32}O_4$	372			
36	Monascuskaodione	$C_{24}H_{30}O_5$	398		<i>M. kaoliang</i>	20
37	Monascuspurone	$C_{26}H_{34}O_5$	426		<i>M. ruber</i>	21

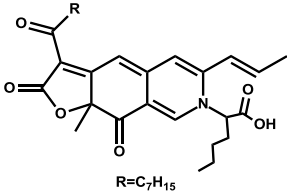
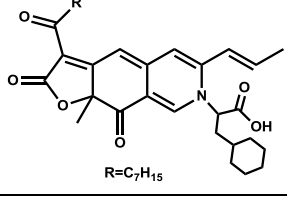
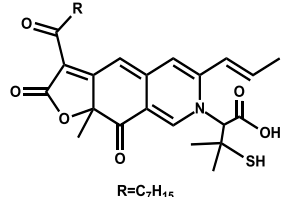
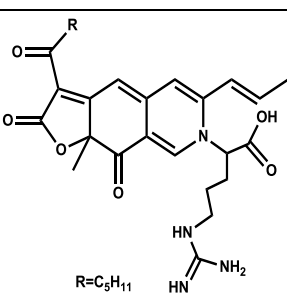
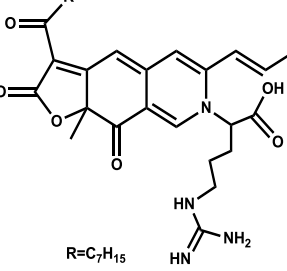
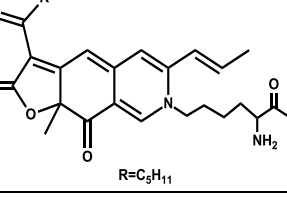
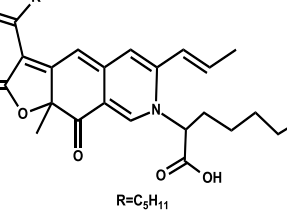
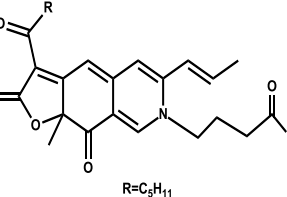
38	IV	Unnamed	$C_{21}H_{24}O_5$	356		<i>M. ruber</i> M7	6
39			$C_{23}H_{28}O_5$	384			
40		Monaphilone B	$C_{20}H_{28}O_4$	332		<i>M. purpureus</i> NTU 568	22
41		Monaphilone A	$C_{22}H_{32}O_4$	360			
42		Monaphilone C	$C_{20}H_{32}O_4$	336			
43		Purpureusone	$C_{23}H_{34}O_5$	390			
44		Monascuspiloin	$C_{21}H_{28}O_5$	360		<i>M. pilosus</i> M93	24, 25
45		Monapilosus-azaphilone	$C_{23}H_{32}O_5$	388		<i>M. pilosus</i>	26
46		Monascusazaphilol	$C_{25}H_{36}O_5$	416		<i>M. pilosus</i> BCRC 38072	27

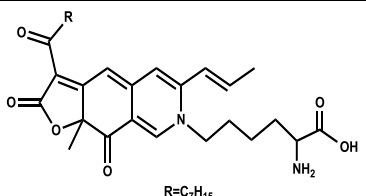
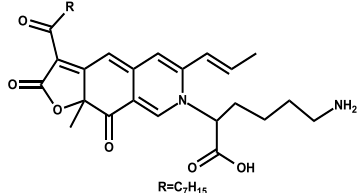
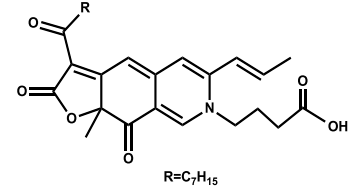
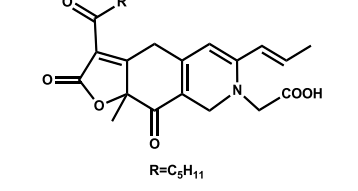
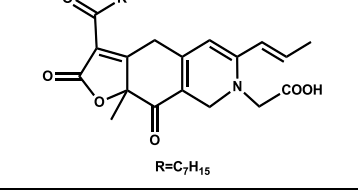
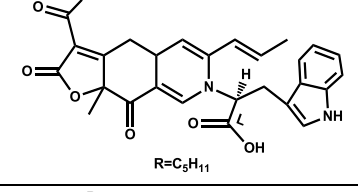
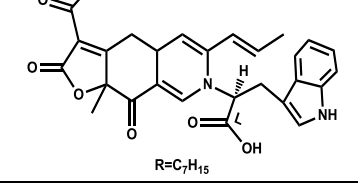
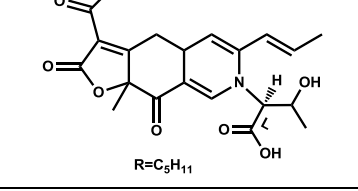
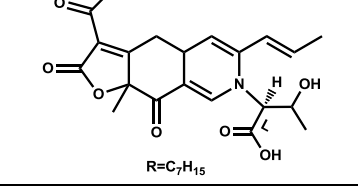
47				$C_{21}H_{28}NO_6$	376		Red yeast rice produced by uncharacterized <i>Monascus</i> spp.	28
48		Unnamed	$C_{23}H_{32}NO_6$	404				
49			$C_{21}H_{27}NO_7S$	437				
50			$C_{23}H_{31}NO_7S$	465				
51		Monarubrin		$C_{20}H_{26}O_4$	330		<i>M. ruber</i> ATCC 96218	29
52		Rubropunctin		$C_{22}H_{30}O_4$	358			
53		Unnamed	Red	$C_{18}H_{25}NO_3$	303		<i>M. ruber</i>	30
54				$C_{20}H_{29}NO_3$	331			
55		Xanthomonasin A	Yellow	$C_{21}H_{24}O_7$	388		<i>M. anka</i> U-1	31

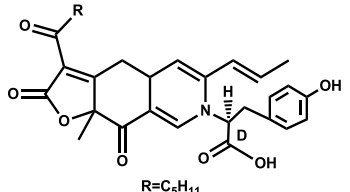
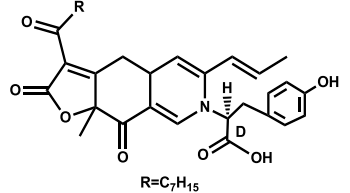
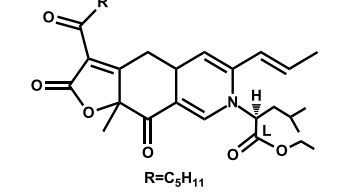
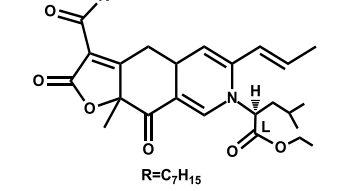
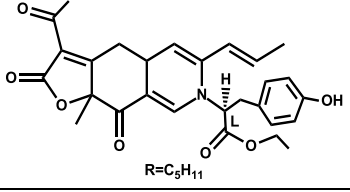
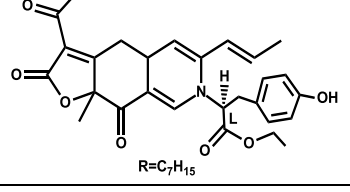
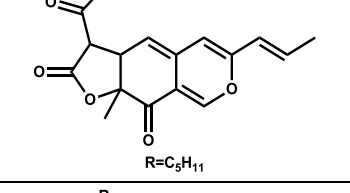
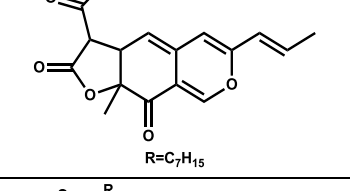
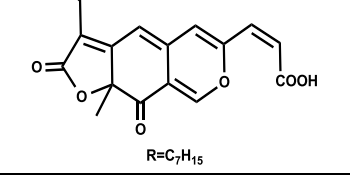
56	Xanthomonasin B		$C_{23}H_{28}O_7$	416	 R=C ₇ H ₁₅					
57	Yellow II		$C_{22}H_{28}O_5$	372	 R=C ₇ H ₁₅	<i>M. sp.</i> KB 10	32			
58	Monapilol B	Orange	$C_{23}H_{24}O_5$	356	 R=C ₅ H ₁₁	<i>M. purpureus</i> NTU 568	33			
59	Monapilol A		$C_{23}H_{28}O_5$	384	 R=C ₇ H ₁₅					
60	Monapilol D		$C_{24}H_{28}O_6$	412	 R=C ₅ H ₁₁					
61	Monapilol C		$C_{26}H_{32}O_6$	440	 R=C ₇ H ₁₅					
62	Monasphilol-methoxy A		$C_{22}H_{26}O_6$	386	 R=C ₅ H ₁₁			<i>M. aurantiacus</i> AS3.4384	34	
63	Monasphilol-methoxy B		$C_{24}H_{30}O_6$	414	 R=C ₇ H ₁₅					
64	Monascopyridine A		Red	$C_{21}H_{25}NO_4$	355			 R=C ₅ H ₁₁	<i>M. purpureus</i> DSM1379	35

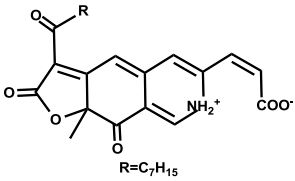
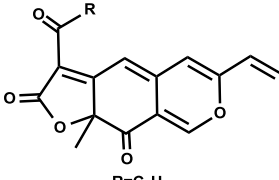
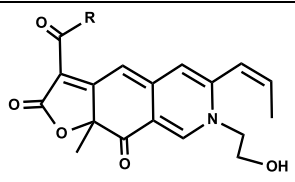
65	Monascopyridine B	$C_{23}H_{29}NO_4$	383			
66	Monascopyridine C	$C_{20}H_{27}NO_3$	315		<i>M. purpureus</i> DSM 1603	36
67	Monascopyridine D	$C_{22}H_{31}NO_3$	343			
68	<i>N</i> -glucosyl-rubropunctamine	$C_{27}H_{33}NO_9$	515		<i>M. ruber</i> ATCC 96218	37
69	<i>N</i> -glucosyl-monascorubramine	$C_{29}H_{37}NO_9$	543			
70	<i>N</i> -glutaryl-rubropunctamine	$C_{26}H_{29}NO_8$	483		<i>M. sp.</i> TTWMB 6093	38
71	<i>N</i> -glutaryl-monascorubramine	$C_{28}H_{33}NO_8$	511			
72	Rubropunctatin L-alanine	$C_{24}H_{27}NO_6$	425		Red yeast rice produced by uncharacterize d <i>Monascus</i> spp.	39
73	Monascorubrin L-alanine	$C_{26}H_{31}NO_6$	453			

74	Rubropunctatin L-aspartate	$C_{25}H_{27}NO_8$	469			
75	Monascorubrin L-aspartate	$C_{27}H_{31}NO_8$	497			
76	Rubropunctatin D-alanine	$C_{24}H_{27}NO_6$	425			
77	Monascorubrin D-alanine	$C_{26}H_{31}NO_6$	453			
78	Rubropunctatin D-aspartate	$C_{25}H_{27}NO_8$	469			
79	Monascorubrin D-aspartate	$C_{27}H_{31}NO_8$	497			
80	Rubropunctatin glycine	$C_{23}H_{25}NO_6$	411		<i>M. purpureus</i> CCM 8152 and <i>M. sp.</i> KCCM 10093	40, 41
81	Monascorubrin glycine	$C_{25}H_{29}NO_6$	439			
82	L-T-Bg	$C_{29}H_{37}NO_6$	495		<i>M. sp.</i> J101	42

83	H-Nle	$C_{29}H_{37}NO_6$	495			
84	H-Cha	$C_{32}H_{41}NO_6$	535			
85	H-Pen	$C_{28}H_{35}NO_6S$	513			
86	Unnamed	$C_{27}H_{34}N_4O_6$	510		<i>M. ruber</i> 102w	16
87		$C_{29}H_{38}N_4O_6$	538			
88	<i>N</i> -Lys-rubropunctatin	$C_{27}H_{34}N_2O_6$	482			
89	<i>N</i> -Lys-rubropunctatin	$C_{27}H_{34}N_2O_6$	482		<i>M. ruber</i> M7	6
90	<i>N</i> -GABA-rubropunctatin	$C_{25}H_{29}NO_6$	439			

91	<i>N</i> -Lys-monascorubrin	$C_{29}H_{38}N_2O_6$	510			
92	<i>N</i> -Lys-monascorubrin	$C_{29}H_{38}N_2O_6$	510			
93	<i>N</i> -GABA-monascorubrin	$C_{27}H_{33}NO_6$	467			
94	Glycyl-rubropunctatin	$C_{23}H_{27}NO_6$	413		<i>M. anka</i> and <i>M. purpureus</i>	43
95	Glycyl-monascorubrin	$C_{25}H_{31}NO_6$	441			
96	Rubropunctatin L-tryptophane	$C_{32}H_{34}N_2O_6$	542		<i>M. ruber</i> and <i>Monascus</i> sp. J101	42, 44
97	Monascorubrin L-tryptophane	$C_{34}H_{38}N_2O_6$	570			
98	Rubropunctatin L-threonine	$C_{24}H_{29}NO_7$	443		<i>M. sp.</i> KCCM 10093	44, 45
99	Monascorubrin L-threonine	$C_{26}H_{33}NO_7$	471			

100	Rubropunctatin D-tyrosine		$C_{30}H_{33}NO_7$	519		<i>M. sp.</i> J101	42, 44
101	Monascorubrin D-tyrosine		$C_{32}H_{37}NO_7$	547			
102	Rubropunctatin ethyl L-leucine		$C_{29}H_{39}NO_6$	497		<i>M. ruber</i> , <i>Monascus sp.</i> KCCM 10093 and <i>M. sp.</i> TTWMB 6093	44, 46, 47
103	Monascorubrin ethyl L-leucine		$C_{31}H_{43}NO_6$	525			
104	Rubropunctatin ethyl L-tyrosine		$C_{32}H_{37}NO_7$	547		<i>M. ruber</i> and <i>Monascus sp.</i> KCCM 10093	47, 48
105	Monascorubrin ethyl L-tyrosine		$C_{34}H_{41}NO_7$	575			
106	Unnamed	Yellow	$C_{21}H_{24}NO_5$	356		Red yeast rice produced by uncharacterize d <i>Monascus</i> spp.	28
107			$C_{23}H_{28}NO_5$	384			
108	PP-O	Orange	$C_{23}H_{24}O_7$	412		<i>Penicillium</i> sp. AZ	48

109	PP-V	Purple	C ₂₃ H ₂₅ NO ₆	411		<i>M. ruber</i> IBT 7904, 9655 <i>M. purpureus</i> IBT 9664	49
110	PP-Y	Orange	C ₂₃ H ₂₆ O ₅	382		<i>Penicillium</i> sp.AZ	48
111	PP-R	Red	C ₂₅ H ₃₁ NO ₅	425			

* MW: Molecular weight; MF: Molecular formula; Ref: References

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