Electronic Supplementary Material (ESI) for Natural Product Reports.

Fungal Bioactive Macrolides

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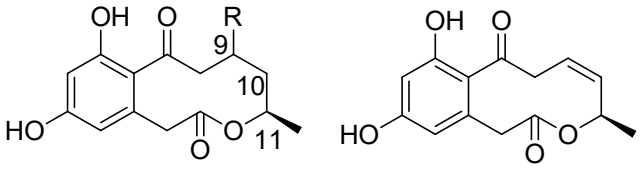
Supplementary Information

Xestodecalactone A-C (Fig. S1) were isolated from *Penicillium* cf. *montanense*. The total synthesis of (+)-xestodecalactone A was realized by a key reaction using a convergent Pd-catalyzed α- arylation between boronic acid and an α-bromoester. This synthesis also allowed to assign its absolute configuration.[2] Sporostatin, was isolated from *Spomoriella* sp. M50322.[3] Its first total high stereoselectivity synthesis of sporostatin was realized and the *S* absolute configuration was determined.[4]

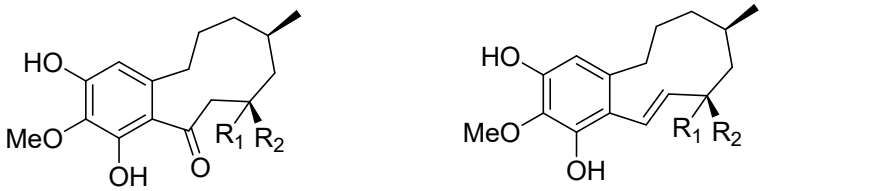


Xestodecalactone A, R=H
Xestodecalactone B, R=OH, 9,11-*cis*
Xestodecalactone C, R=OH, 9,11-*trans*

Sporostatin

Fig. S1. Structures of Xestodecalactones A-C and sporostatin, isolated, respectively from *Penicillium* cf. *montanense* and *Sporomiella* sp. M5032

Xestodecalactones D-F (Fig. S2)were isolated together with four known compounds *Corynespora cassiicola*- The latter compounds were identified as as corynesidone A and B, 2,5,7-trihydroxy-3-methoxynaphthalene-1,4-dione and 6-(3-hydroxybutyl)-7-O-methylspinochrome B.[5]



Xestodecalatones D, R_1=OH, R_2=H
Xestodecalatones E, R_1=H, R_2=O-pentyl

Xestodecalatones F, R_1=H, R_2=O-pentyl

Fig. S2. Xestodecalatones D-F isolated from *Corynespora cassiicola*

Table S1 Fungal Bioactive close to macrolides

Number of macrolide ring members	Compounds	Fungal Producer	Activities	Refs.
10	Xestodecalactone A	*Penicillium cf. montanense*	No toxic	1
"	Xestodecalactone B	"	Antifungal activity	"
"	Xestodecalactone C	"	No toxic	"
"	Sporostatin	*Spomoriella* sp. M5032	Inhibitor of EGF receptor kinase	2
"	Xestodecalactones D	*Corynespora cassiicola*	No activity	5
"	Xestodecalactones E	"	"	"
"	Xestodecalactones F	"	"	"

References

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