

**Table S6.** List of compounds retrieved from the included papers.

Compound Name	SMILES <sup>a</sup>	<i>Streptomyces</i> strain	Bioactivity tested	Source type	Ref.
Metacycloprodigosin (1)	<chem>CCC1CCCCCCCCC2=CC1=C(N2)C=C3C(=CC(=N3)C4=CC=CN4)OC</chem>	<i>Streptomyces spectabilis</i> L20190601	Antimicrobial	Soil (Free – living)	[1]
		<i>Streptomyces</i> sp. JS520	Multiple	Soil (Free – living)	[2]
Undecylprodigosin (2)	<chem>CCCCCCCCCCCCC1=CC=C(N1)C=C1N=C(C=C1OC)C1=CC=CN1</chem>	<i>Streptomyces</i> sp. JAR6	Multiple	Soil (Free – living)	[3]
		<i>Streptomyces longisporus</i> rubber M-3	N/A	N/A	[4]
Streptorubrin A	<chem>[H]C1=C(CCCCCCCCCC)NC(\C=C2\N=C(C=C2OC)C2=CC=CN2)=C1</chem>	<i>Streptomyces</i> sp. CWW6	Antimicrobial	Freshwater (Free-living)	[5]
Streptorubrin B (3)	<chem>CCC1CCCCCCCCC2=CC1=C(N2)\C=C1\N=C(C=C1OC)C1=CC=CN1</chem>	<i>Streptomyces</i> sp. 13-4			
		<i>Streptomyces</i> sp. WMA-LM31	Multiple	Soil (Free – living)	[6]
		<i>Streptomyces</i> sp. BSE6.1	Antimicrobial	N/A	[7]
Prodigosin (4)	<chem>CCCCC1=C\C=C(C2=C(OC)C=C(N2)C2=CC=CN2)N=C1C</chem>	<i>Streptomyces coelicolor</i> A3(2)	N/A	N/A	[8–11]
		<i>Streptomyces coelicolor</i> A3(2)	Antimicrobial	N/A	[10]
		<i>Streptomyces</i> sp. NP4	Cytotoxic	Soil (Free – living)	[12]
Bright yellow compound (5) <sup>1</sup>	<chem>[H]C1=C(C(=O)C2=C(C(O)=CC=C2)C1=O)C1=C(OC)C=C(C(C)C=C1C(O)=O</chem>				
Orange compound (6) <sup>2</sup>	<chem>COC1=C(C(=CC(C)=C1)C(O)=O)C1=C(O)C(=O)C2=C(CC=C2O)C1=O</chem>	<i>Streptomyces coelicolor</i> A3(2)	Antimicrobial	N/A	[10]
Compound (7) <sup>3</sup>	<chem>COC1=C2C(=CC(C)=C1)C(=O)OC1=C2C(=O)C2=C(C(O)=CC=C2)C1=O</chem>				

Actinomycin L <sub>1</sub> <sup>4</sup> (8)	<chem>CC(C)[C@H]1NC(=O)[C@@H](NC(=O)C2=CC=C(C)C3=C2N=C2C(O3)=C(C)C(=O)C(N)=C2C(=O)N[C@H]2[C@@H](C)OC(=O)[C@H](C(C)C)N(C)C(=O)CN(C)C(=O)[C@H]3CC4(CN3C(=O)[C@H](NC2=O)C(C)C)NC(=O)C2=C(N4)C=CC=C2)[C@@H](C)OC(=O)[C@H](C(C)C)N(C)C(=O)CN(C)C(=O)[C@@H]2CCCN2C1=O</chem>	<i>Streptomyces sp.</i> MBT27	Antimicrobial	Soil (Free – living)	[13]
Actinomycin L <sub>2</sub> <sup>4</sup> (9)	<chem>CC(C)[C@H]1NC(=O)[C@@H](NC(=O)C2=CC=C(C)C3=C2N=C2C(O3)=C(C)C(=O)C(N)=C2C(=O)N[C@H]2[C@@H](C)OC(=O)[C@H](C(C)C)N(C)C(=O)CN(C)C(=O)[C@H]3CC4(CN3C(=O)[C@H](NC2=O)C(C)C)NCC2=C(C=CC=C2)N4=O)[C@@H](C)OC(=O)[C@H](C(C)C)N(C)C(=O)CN(C)C(=O)[C@@H]2CCCN2C1=O</chem>				
Actinomycin X2 (10)	<chem>[H][C@@]12CCCN1C(=O)[C@H](NC(=O)[C@@H](NC(=O)C1=C3N=C4C(OC3=C(C)C=C1)=C(C)C(=O)C(N)=C4C(=O)NC1[C@H](C)OC(=O)[C@H](C(C)C)N(C)C(=O)CN(C)C(=O)[C@]3([H])CC(=O)CN3C(=O)[C@@H](NC1=O)C(C)C)[C@H](C)OC(=O)[C@@H](C(C)C)N(C)C(=O)CN(C)C2=O)C(C)C</chem>	<i>Streptomyces cyaneofuscatus</i>	Antimicrobial	Marine Symbiont	[14]
γ-Actinorhodin (11)	<chem>C[C@H]1O[C@@H]2CC(=O)O[C@@H]2C2=C1C(=O)C1=C(C(O)=CC(=C1O)C1=C(O)C3=C(C(O)=C1)C(=O)C1=C([C@@H](C)O[C@@H]4CC(=O)O[C@H]14)C3=O)C2=O</chem>	<i>Streptomyces coelicolor</i> A3(2)	N/A	N/A	[8–11]

Actinorhodin (13)	<chem>C[C@H]1O[C@H](CC(O)=O)CC2=C1C(=O)C1=C(C(O)=C(C(=O)C1=C(C(O)C3=C(C(O)=C1)C(=O)C1=C([C@@H](C)O[C@H](CC(O)=O)C1)C3=O)C2=O</chem>				
$\lambda$ -Actinorhodin (12)	<chem>CC(COC1COC1)OC(=O)C[C@H]1O[C@H](C)C2=C(C1O)C(=O)C1=C(C(O)=C(C(O)=C1O)C1=C(C(O)C3=C(C(O)=C1O)C(=O)C1=C([C@@H](C)O[C@H](CC(=O)OC(C)COC4COC4)C1O)C3=O)C2=O</chem>	<i>Streptomyces coelicolor</i> 100	Cytotoxic	Soil (Free – living)	[15]
Grixazone A (14)	<chem>[H]C(=O)C1=CC=C2OC3=C(C(=O)C(N)=C(SCC(NC(C)=O)C(O)=O)C3=NC2=C1</chem>	<i>Streptomyces griseus</i>	Antimicrobial	N/A	[16]
Grixazone B (15)	<chem>CC(=O)NC(CSC1=C(N)C(=O)C=C2OC3=CC=C(C=C3N=C12)C(O)=O)C(O)=O</chem>				
Indigoidine (16)	<chem>C1=C(C(=O)NC(=O)C1=N)C2=C(NC(=O)C(=C2)N)O</chem>	<i>Streptomyces aureofaciens</i> CCM 3239	N/A	Soil (Free – living)	[17]
Katorazone (17)	<chem>[H]N(\N=C1/C2=C(C(O)=C(C=C2)C(=O)C2=C1C=C(C)N=C2C)C1=CC=CC=C1C(=O)OC</chem>	<i>Streptomyces</i> sp. IFM 11299	Cytotoxic	Soil (Free – living)	[18]
TDTA <sup>5</sup> (18)	<chem>C[C@@H]1O[C@@H](CC(O)=O)[C@@H](O)C2=C1C(O)=C1C(=O)C3=C([C@H]4C[C@@H](O)[C@]3(O)[C@@H](C)O4)C(=O)C1=C2O</chem>	<i>Streptomyces</i> sp. A1013Y	Antioxidant	Soil (Free – living)	[19]
Resistomycin (19)	<chem>CC1=C2C(O)=CC3=C4C2=C(C(O)=C1)C(=O)C1=C4C(=C(O)C=C1O)C(=O)C3(C)C</chem>	<i>Streptomyces aurantiacus</i> AAA5	Multiple	Soil (Free – living)	[20]
Melanin		<i>Streptomyces</i> sp.	Antioxidant	Marine (Free – living)	[21]
		<i>Streptomyces</i> sp. MVCS13	Antimicrobial	Marine (Free – living)	[22]

	<i>Streptomyces</i> sp.(F1,F2,F3)	Antimicrobial	Marine (Free – living)	[23]
	<i>Streptomyces</i> <i>glaucescens</i> NEAE- H	Multiple	Soil (Free – living)	[24]
	<i>Streptomyces</i> sp. ZL-24	Multiple	Soil (Free – living)	[25]
	<i>Streptomyces</i> <i>glaucescens</i> KCTC988	Antioxidant	N/A	[26]
	<i>Streptomyces</i> <i>cavourensis</i> SV 21	Multiple	Marine Symbiont	[27]
	<i>Streptomyces</i> <i>puniceus</i> RHPR9	Multiple	Terrestrial Symbiont	[28]
Eumelanin	<i>Streptomyces</i> <i>fulvissimus</i> MPPS4	N/A	N/A	[29]
	<i>Streptomyces</i> <i>xiamenensis</i> MPPS6			
	<i>Streptomyces parvus</i> BSB49	Multiple	Soil (Free – living)	[30]
Pyomelanin	<i>Streptomyces</i> sp. MPPS2	N/A	N/A	[31]

<sup>1</sup>The compound name is 2-(5-hydroxy-1,4-dioxo-1,4-dihydronaphthalen-2-yl)-3-methoxy-5-methylbenzoic acid

<sup>2</sup>The compound name is 2-(3,5-dihydroxy-1,4-dioxo-1,4-dihydronaphthalen-2-yl)-3-methoxy-5-methylbenzoic acid

<sup>3</sup> The compound name is 8-hydroxy-1-methoxy-3-methyl-5H-dibenzo [*c,g*] chromene-5,7,12-trione

<sup>4</sup>These compounds are pigment associated compounds however, its role as a pigment or its coloration is not clear.

<sup>5</sup>The compound name is 4,8,13-trihydroxy-6,11-dione-trihydrogranaticins A (TDTA)

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