

Marine myxobacteria as a source of antibiotics - Comparison of physiology, polyketide-type genes and antibiotic production of three new isolates of *Enhygromyxa salina*

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Sequences obtained by PCR with the degenerate primer pair KSup and KSdn

KSup (5'MGNGARGCENNWSMNATGGAYCCNCARCANMG3')

KSdn (5'GGRTCNCNARNSWNGTNCNGTNCRTG3')

Strain SWB004:

#1

GGGTCGCCGAGGGTGGTGCCGGTGCCATGGGCCTCGACGGCGTCGACGTCTGCGGGCGCGAGCTT
GGCGGCCGCGAGCGCGGCTCGGATCACCCGTTGTTGCGCCGGCCCGTTTCGGCGCGGTCAGGCCCTG
GCTTCGGCCGTCCTGGTTGACGGCCGAGCCACGGATCACAGCGTGGACAGGGTGGCCGTTGGCGCG
GGCATCGGCGAGCCGCTCGAGGATCAGGACGCCGGCACCCTCGGCCCAGCCGACGCCGTTGGCGG
TGGCCCCGAACGCCTTGCAGCGGCCATCCTCGGACAGCGCGCCCTGCCGGCTAAATTCGATGAATG
AGCCGGGCGTGGCCATCACCGCGACGCCGCTGGCCAGCGCGAGGTCACTACCGTCGCGCAGC
GCACGTGCGGCGAGGTGGGTGGACACCAGGGAAGAGCTGCAAGCCGTGTGACGGCGAGGGCCG
GGCCTTCGAGGCCGAACACATAGGCGAGCCGACCCGACGCGACGCTGCCGGCGCTCCCGAGCGCG
ACATGGCCGGTCAGGGCCTGCGGATCATTGATGAACCGCCCGCCGTAGTCGTTGTACATGATCCCG
ACGAACACGCCGGTGTGCTGCCCCGACGTGCGCGGGCCGGATGCCCGCGTCTTCgAGGGCCTCC
CACGAGGTCTCCAGCAACAGTCGCTgcnngGGTCCATCTCCAGCGCCTCCCT

#2

GGGTCGCCGAGGGTGGTGCCGGTGCCATGGGCCTCGACGGCGTCGACGTCTGCGGGCGCGAGCTT
GGCGGCCGCGAGCGCGGCTCGGATCACCCGTTGTTGCGCCGGCCCGTTTCGGCGCGGTCAGGCCCTG
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GGCATCGGCGAGCCGCTCGAGGATCAGGACGCCGGCACCCTCGGCCCAGCCGACGCCGTTGGCGG
TGGCCCCGAACGCCTTGCAGCGGCCATCCTCGGACAGCGCGCCCTGCCGGCTAAATTCGATGAATG
AGCCGGGCGTGGCCATCACCGCGACGCCGCTGGCCAGCGCGAGGTCACTACCGTCGCGCAGC
GCACGTGCGGCGAGGTGGGTGGACACCAGGGAAGAGCTGCAAGCCGTGTGACGGCGAGGGCCG
GGCCTTCGAGGCCGAACACATAGGCGAGCCGACCCGACGCGACGCTGCCGGCGCTCCCGAGCGCG
ACATGGCCGGTCAGGGCCTGCGGATCATTGATGAACCGCCCGCCGTAGTCGTTGTACATGATCCCG
ACGAACACGCCGGTGTGCTGCCCCGACGTGCGCGGGCCGGATGCCCGCGTCTTCgAGGGCCTCC
CACGAGGTCTCCAGCAACAGTCGCTgcnngGGTCCATCTCCAGCGCCTCCCT

#3

GGGTCGCCGAGGGTGGTGCCGGTGCCATGGGCCTCGACGGCGTCGACGTCTGCGGGCGCGAGCTT
GGCGGCCGCGAGCGCGGCTCGGATCACCCGTTGTTGCGCCGGCCCGTTTCGGCGCGGTCAGGCCCTG
GCTTCGGCCGTCCTGGTTGACGGCCGAGCCACGGATCACAGCGTGGACAGGGTGGCCGTTGGCGCG
GGCATCGGCGAGCCGCTCGAGGATCAGGACGCCGGCACCCTCGGCCCAGCCGACGCCGTTGGCGG
TGGCCCCGAACGCCTTGCAGCGGCCATCCTCGGACAGCGCGCCCTGCCGGCTAAATTCGATGAATG
AGCCGGGCGTGGCCATCACCGCGACGCCGCTGGCCAGCGCGAGGTCACTACCGTCGCGCAGC
GCACGTGCGGCGAGGTGGGTGGACACCAGGGAAGAGCTGCAAGCCGTGTGACGGCGAGGGCCG
GGCCTTCGAGGCCGAACACATAGGCGAGCCGACCCGACGCGACGCTGCCGGCGCTCCCGAGCGCG
ACATGGCCGGTCAGGGCCTGCGGATCATTGATGAACCGCCCGCCGTAGTCGTTGTACATGATCCCG
ACGAACACGCCGGTGTGCTGCCCCGACGTGCGCGGGCCGGATGCCCGCGTCTTCgAGGGCCTCC
CACGAGGTCTCCAGCAACAGTCGCTgcnngGGTCCATCTCCAGCGCCTCCCT

#4

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GGACGCCGGCTACGCGCCGCGGAACCTGACGGCGCCGCTTGTGGTGTGTTTGTGGGCTGCAAGGC
CGCCGACTACCAGATGCGTCTGCACAGCTCCGGTCATCAGGACGGCTACGCCTACAGCGCCAACGA
CATCTCGATGTTGCTGGGCGCGTGTCTATTTCTTCAACCTGCGCGGCCCGCCGTTCCGGTCAAT
ACGGCGTGCTCGTATCGCTCGTGCCTTGCACCTGCCTGCAACGCGCTGGCCGCCAACGACTGC
GAGCAAGCCCTCGTCGCTGGTGTGGAGTTCATGACCACGCCGGGGATCTTCGTGGCCTTGGGCAGC
GCTGGTGCCTCTCTCCGAGTCCGCTGTGTGCGCCCTTCGACGCCGCCGCCGACGGCGTCTGTCTCG
GCGAGGGGCTCGTTGTCTTGCTGATCAAGCCCCCTCGCTCGGGCCCTCGCTGACGGCGATTTCGATCC
GGGGGGTATCCGGCGACAGGCGTCAACCAAGACGGGCGTAGCAGCGGAATCAACGCGCCGAAC
GGCCAGGCCAGCGCGGTTGATCGTGCACGTGCACCGGCGCGCGACGTACAGCCCGAGCAGCT
CGGTCTCGTCGAGACCCATGGCACCGGCACCACCTTCGGCGACCC

#5

GCCGCCNTGGCCGCGGGATTGGATCGCCGAGGCAGGTGCCGGTGCCGTGGGTCTCGACGA
GACCGAGCTGCTCGGGCCTGACGTCCGCGCGCCGGTGACGTGACGATCAACGCGCGCT
GGGCTGGCCGTTTCGGCGCGTTGATTCCGCTGCTACGCCCGTCTTGTTGACGCTGTGC

CCCGGATGACCCCCCGGATCGAATCGCCGTCAGCGAGGGCCCCGAGCGAGGGGCTTGATCA
GCAAGACAACGACCCCCCTCGCCGAGCACGACGCCGTCGGCGGGCGGCGTCAAGGGCCGAC
ACAGCGGACTCGGAGAGAGCGCACACGCGCTGCCAAGGCCACGAAGATCCCCGGCGTGG
TCATGAACTCCACACCAGCGACGAGGGCTTGCTCGCAGTCGTTGGCGGCCAGCGCGTTGC
AGGCGAGGTGCAAGGCGACGAGCGATGACGAGCACGCCGATTGACCGGAACGGCGGGGC
CGCGCAGGTTGAAGAAATAGGACACGCGCCCAGGCAACATCGAGATGTCGTTGGCGCTGT
AGGCGTAGCCGTCCTGATGACCGGAGCTGTGCAGACGCATCTGGTAGTCGGCGGCCTTGC
AGCCCACAAACACACCACAAGCGGCGCCGTCGAGTTTCGGCCGGCGCGTAGCCGGCGTCTT
CGATCGCCCCGCCAGCTCTCCTCGAGCACGACCCGCTGCTGCGGATCCATCGGCTTCGCCT
CCC

#6

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CAACGACTACGGCGGGCGGTTTCATCAATGATCCGACGGCCCTGACCGGCCATGTCGCGCTCGGGAG
CGCCGGCAGCGTCGCGTCGGGTCGGCTCGCCTATGTGTTGGGCTCGAAGGCCCGGCCCTCGCCGT
CGACACGGCTTGACGCTCTTCCCTGGTGTCCACCCACCTCGCCGCACGTGCGCTGCGCGACGGTGA
GTGTGACCTCGCGCTGGCCAGCGGCGTCGCGGTGATGGCCACGCCCGGCTCATTCATCGAATTTAG
CCGGCAGGGCGCGCTGTCCGAGGATGGCCGCTGCAAGGCGTTCGGGGCCACCGCCAACGGCGTCG
GCTGGGCGGAGGGTGCCGGCGTCCTGATCCTCGAGCGGCTCGCCGATGCCCCGCGCAACGGCCACC
CTGTCCACGCTGTGATCCGTGGCTCGGCCGTCAACCAGGACGGCCGAAGCCAGGGCCTGACCGCGC
CGAACGGGCCGGCGCAACAACGGGTGATCCGAGCCGCGCTCGCGGCCGCAAGCTCGCGCCCCGA
GACGTCGACGCCGTCGAGGCCACGGCACCGGCACCTGCCTCGGCGACCC

Strain SWB005:

#1

GGGTGCGCGAAGGTGGTGCCGGTGCCGTGGGTCTCGACGTAGTGGACCGTGGCCGGGTGACGCTG
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GGAGGAGCCGTCGTTGTTGGCCGCGCTGCCGCGGATCAAACAATAGATCCGGTCGCCGTGCGCGAT
CGCGCGGCTGAGCGGCTTGAGCACGACGAGCCCGCCGCCCTCGGCCGGACGTAGCCGTTGGCGC
CCGCGTCGAAGGCCCGGCACTGACCGGCGGGGTTTTGGGTCCCGAGCTTGGTTCATCACGACCGAGC
CGTGGGGCGTGATGATCAAGTTGATGCCGCCGGCGACGGCCATGGTTCGTCTCGCCGGCGCGCAGGC
TCTGGCACGCGAGGTGGACCGCGACCAGCGAGCTCGAGCTCGCGGTGTTGACCGTGAGGCTCGAG
CCCTCGAGCCCCGAGGGTGTAGGAGATGCGGCCCGAGATGATCGAGGTGTGCGCCCCGGTCCCCGT
GTGCTGATCGATGATCGTCGGGTGCTCGGAGCTCAGGCGCGCGTAGTCGCACCACATCGCGCCGTC
GAACACGCCGACGTTGCTCCCCGCGCAGCCCCAGGGGATCGATGCCCGCGTCTCgAAGGCCTCCCA
CGACAGCTCGAGCCCCGAGGCGCTGCTGCGGATCCATCGCCTTCGCCTCCCT

#2

AGGGAGGCGAAGGCGATGGACCCGACGAGCGGCTGCTGCTCGAGCTGTCTTGGAAGTGCTCGA
GCACGCAGGCATCGTCCCCGAGTCACTCTACGAGACCAACACCGGGGTGTTGTCGCGCTCTGCTA
CGACGACTACCTGAGCCTCGCGCCCCGCGCCGAGCACGCGGAGGACGGCTACGCGACCCTCGGCA
ACCTCTACAGCGTCAGCTCCGGCCGTATCGCCTACACCCTCGGGCTGCAGGGCCCCGCGCTGACCG
TCGATACCGCGTGCAGCACCTCGCTCGTCACGCTGCACCTCGCTTGCCAGGCCCTGCGCAAGGGTG
AGTGCGACCTCGCGCTGTCCGGCGGCGCGACGGCCTTCTCGACCCCCGAGCCGCTGCTGTCTTCTC
GCGGCTCAAGACCCTCTCGCCGACGGCCGCTGCAAGGCCTTCTCGGCCGAGGCCGACGGCGCCGG
CTGGGCCGAGGGGGGCGGCATGCTCGTGCTCGAGCGCCTCAGCGACGCCCAGCGCAACGGTCACC
GGGTCTTGCGCTCATCCGCGGCTCGGCGCTGAACCAAGACGGTCGCAGCCAGGGCCTACCGCGC
CCAACGGCCCCGCACAGCAGCGCGTGATCCGGTCCGCGCTGGCCAACTGCCAGCTCTCGCCCGGCG
ATGTCGACGTCGTCGAGGCCCATGGCACCGGCACCAGCCTCGGCGACCC

#3

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GCGCGCGGGGATCCCCCGGACTCCCTGCGTGGCTCACCGACCGGCGTGTTCGTCGGCGTCATGTA
CAGCGACTACGGCGGCCGACTCTTCGCCAGCCCCGAGGCGCTCGAGGGCTACGTGCGCATCGGCA
GCGCGCCATCGGTGCGGTCCGGTCGGATCTCCTACACCTTCGGCTTCGAGGGCCCCGGGTGTCGG
TCGACACCGCGTGCAGCTCATCGCTCGTGGCCCTGCACCTCGCCGCGCAAGCGCTGCGCAACCACG
AGTGCGACCTCGTCTCGCCGGCGGCGGACGGTCATGGCGACGCCCAGCATGTTGCTGGAGTTCA
GCCGTACGCGCGCCCTCGCTCCGGACGGGCGTGCAAGTCCTTCGCGAGCGACGCCGAGCGGCTCG
CGTGGGCGGAAGGCGCCGCATGCTCGTGCTCGAGCGGCTGTCCGACGCCCCGCCACGGCCAC
CCGGTGCTGGCGCTGGTCCGGGGCTCGACGATCAACCAAGATGGCCGCAGCCAGGGGCTCACGGC

GCCTAACGGGCCGTCGCAGCAGCGCGTGATCAGGGCCGCGCTCGCGGCCGCGTCACTGTGCGCTGC
CGACGTGACCTGATCGAGGCCACGGCACCGGCACCACCCTCGGCGACCC

#4

AGGGAGGCGAAGGCGATGGACCCGCAGCAGCGGCTGCTGCTCGAGCTGTCTTGGGAAGTGCTCGA
GCACGCAGGCATCGTCCCCGAGTCACTCTACGAGACCAACACCGGGGTGTTTCGTCGGCGTCTGCTA
CGACGACTACCTGAGCCTCGCGCCCCGCGCCGAGCACGCGGAGGACGGCTACGCGACCCTCGGCA
ACCTCTACAGCGTCAGCTCCGGCCGTATCGCCTACACCCTCGGGCTGCAGGGCCCCGCGCTGACCG
TCGATACCGCGTGCAGCACCTCGCTCGTCACGCTGCACCTCGCTTGCCAGGCCCTGCGCAAGGGTG
AGTGCGACCTCGCGCTGTCCGGCGGCGCGACGGCCTTCTCGACCCCCGAGCCGCTGCTGTCTTCTC
GCGGCTCAAGACCCTCTCGCCGACGGCCGCTGCAAGGCCTTCTCGGCCGAGGCCGACGGCGCCGG
CTGGGCCGAGGGGGGCGGCATGCTCGTGCTCGAGCGCCTCAGCGACGCCACGCGCAACGGTCAACC
GGTCTTGGCGCTCATCCGCGGCTCGGCGCTGAACCAAGACGGTCGCAGCCAGGGCCTCACCGCGC
CCAACGGCCCCGACAGCAGCGCGTGATCCGGTCCGCGCTGGCCAACTGCCAGCTCTCGCCCGGCG
ATGTCGACGTCGTCGAGGCCCATGGCACCGGCACCAGCCTCGGCGACCC

Strain SWB006:

#1

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CGGGCGTGGCCATCACCGCGACGCCGCTGGCCAGCGCGAGGTCACACTACCGTCGCGCAGCGCA
CGTGCGGCGAGGTGGGTGGACACCAGGGAAGAGCTGCAAGCCGTGTCGACGGCGAGGGCCGGGCC
TTCGAGGCCGAACACATAGGCGAGCCGACCCGACGCGACGCTGCCGGCGCTCCCGAGCGCGACAT
GGCCAGTCAGGGCCTGCGGATCATTGATGAACCGCCCGCCGTAGTCGTTGTACATGATCCCGACGA
ACACGCCCGTGTGCTGCCTCGCAGCTGCGCGGGCCGGATGCCCGCGTCTTCGAAAGCCTCCCACG
AGGTCTCCAGCAACAGTCGCTGCTGCGGGTCCATACCAACGCCTCCCT

#2

anTCgACGGCGTTCGACGTCTGCGGGCGCGAGCTTnnnnnnnnnnancGCGGCTCGGATCACACGTTGTTGC
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ACAGCGTGGACAGGATGGCCGTTGGCGCGGGCATCGGCGAGCCGCTCGAGGATCAGGACACCGGC
ACCCTCGGCCCAGCCGACGCCGTTGGCGGTGGCCCCGAACGCCTTGACGCGGCCATCCTCGGACAG
CGCGCCCTGCCGGCTAAATTCGATGAATGAGCCGGGCGTGGCCATCACCGCGACGCCGCTGGCCAG
CGCGAGGTCACACTACCGTCGCGCAGCGCACGTGCGGCGAGGTGGGTGGACACCAGGGAAGAGC
TGCAAGCCGTGTCGACGGCGAGGGCCGGGCCTTCGAGGCCGAACACATAGGCGAGCCGACCCGAC
GCGACGCTGACCGGCGCTCCCGAGCGGACATGGCCAGTCAGGGCCTGCGGATCATTGATGAACCG
CCCGCCGTAGTCTGTACATGATCCCCACGAACAGCCGGTGTGCTGCCTCGCAGCTGCGCGGG
CCGGATGCCCGCGTCTTCGAAAGCCTCCCACGAGGTCTCCAGCAACAGTCGCTGCTGCGGATCCAT
CCCCACGCTTCCCT

#3

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CTGCGGGCGCGAGCTTGCGGGCCGCGAGCGCGGCTCGGATCACACgttGtTGCGCCgGccCGTTCGGC
GcggTcAGGCCCTGgcTTCgGCCGTCTGgtTGACGGCCGAGCCACGGATCAcagcgtGGACAGGATGGcC
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GGcGGTGGCCCCGAaAcGCCTTGcancGGCCaTCCTCgGACAGCGCGCCCTGCCGGCTAAATTcNATGAA
TGAnCcgGGCgTGgcCATCACCGCGACGCCgCTGGCCAGCGCGAGGtCaCACTCACCGtCgCGCAGCGC
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CgAAcag

#4

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TCGGCCGTCTGTTGACGGCCGAGCCACGGATCACAGCGTGGACAGGATGGCCGTTGGCGCGGG
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GCCCCGAACGCCTTGACGCGGCCATCCTCGGACAGCGCGCCCTGCCGGCTAAATTCGATGAATGAG
CCGGCGTGCCATCACCGCGACGCCGCTGGCCAGCGGAGGTCACACTACCGTCGCGCAGCGC
ACGTGCGGCGAGGTGGGTGGACACCAGGGAAGAGCTGCAAGCCGTGTCGACGGCGAGGGCCGGG
CCTTCGAGGGCCGAACaTAGGCgAgCCGACCCGACGCGACGCTGCCGGCGCTCCCGAGCGCGACaT
GGCCAGTCAGGGCCTGCGGATCATTGATGAACCGCCCCcctGtAntCgtTGtaCaTGATCCCCACGAACAC

GCCGGTGTTCGcTGCCTCGcAnCTGCGCGGGCCGGATGCcCGCGTCTTCnAaaGCCTCccACGAgGTCTCC
AgCaAcagncgcTGntGCGGATccaTCGGctnntCncTant

#5

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GGCGGTCAGGCCCTGGATTTGTCCGTCCTGGTTGACGGCCGAGCCAGGGATCTCAGCGTGGTCAGG
ATGGCCGTGGGGGCCGCCATCGGTGACCCGTTTCGAGGATCAGGACACCGGCACCCCCGCCCCATTC
AAAGCCGTGGGAGGTGGCCCCGAAAGTCTTGTAACGGCCATCCCAGCACACGGCGCCCTGCCGGC
TAAATTATTAGAATGAGCCGGGATGGCCATCACCGCAACGCCGCTGGCCAGCCCGAGGTCACACTC
ACCGTTTCGCATCGCACGTGTGGGCAGGTGGATGGACACCAGCGAAAACCTGCAGTCCGTGTCGAC
GGCGAAGGTCGGGCCTTCGACGCCGAAAACCTTAGGAAAGCCTACCCGACCCGATGCTGGCGGTGC
TCCCGAACGCGACATGCCCAGGCAGGGCCTGCGAATAATTGATGAACCGCCCGCCGTATTGTTGCC
CTGATCCCGACAAACATAACCGGTGTTGCTGCCTCGATCTGCCCCGGTCGGGATGCCCGCGTCTTCAA
AAGCCCCCACGAATCCCCAGTCGCTGTCCCTGATGCGGGATGTTCCGCTTCTCCTATAAATTAATAT
T

SWB006 #1	1	-----catcggcgagccgctcgaggatcaggacacccggcacccctcgggcccagccgacgccc
SWB006 #2	169	-----catcggcgagccgctcgaggatcaggacacccggcacccctcgggcccagccgacgccc
SWB006 #3	211	gccgttggcgcgggcatcggcgagccgctcgaggatcaggacacccggcacccctcgggccanccgacgccc
SWB006 #4	203	-----catcggtgagccgctcgaggatcaggacacccggcacccctcgggcccagccgacgccc
SWB006 #1	57	ttggcgggtggccccgaacgccttgacgcggccatcctcggacagcgcgccttgccggctaaattcgatga
SWB006 #2	225	ttggcgggtggccccgaacgccttgacgcggccatcctcggacagcgcgccttgccggctaaattcgatga
SWB006 #3	281	ttggcgggtggccccgaacgccttgcanccggccatcctcggacagcgcgccttgccggctaaattcnatga
SWB006 #4	259	ttggcgggtggccccgaacgccttgacgcggccatcctcggacagcgcgccttgccggctaaattcgatga
SWB006 #1	127	atgagccgggcggtggccatcacccgcgacgcgcctggccagcgcgcgaggtcacactcacgctcgcgcagcgc
SWB006 #2	295	atgagccgggcggtggccatcacccgcgacgcgcctggccagcgcgcgaggtcacactcacgctcgcgcagcgc
SWB006 #3	351	atganccgggcggtggccatcacccgcgacgcgcctggccagcgcgcgaggtcacactcacgctcgcgcagcgc
SWB006 #4	329	atgagccgggcggtggccatcacccgcgacgcgcctggccagcgcgcgaggtcacactcacgctcgcgcagcgc
SWB006 #1	197	acgtgcggcgaggtgggtggacaccagggaagagctgcaagccgtgtcgacggcgagggccgggccttcg
SWB006 #2	365	acgtgcggcgaggtgggtggacaccagggaagagctgcaagccgtgtcgacggcgagggccgggccttcg
SWB006 #3	421	acgtgcggggaggtgggtggacaccagggaagagctgnaagccgtgtcgacggnaagggccgggccttcg
SWB006 #4	399	acgtgcggcgaggtgggtggacaccagggaagagctgcaagccgtgtcgacggcgagggccgggccttcg
SWB006 #1	267	aggccgaacacataggcgagccgacccgacgcgcgcctgcgggcgctcccagcgcgcgacatggccagtca
SWB006 #2	435	aggccgaacacataggcgagccgacccgacgcgcgcctgcgggcgctcccagcgcgcgacatggccagtca
SWB006 #3	491	aggccgaacag-----
SWB006 #4	469	aggccgaacacataggcgagccgacccgacgcgcgcctgcgggcgctcccagcgcgcgacatggccagtca
SWB006 #1	337	gggcctgcggatcattgatgaaccgcccgcgctagtgcgttgatcatgatcccagcgaacacgcgggtgtt
SWB006 #2	505	gggcctgcggatcattgatgaaccgcccgcgctagtgcgttgatcatgatcccagcgaacacgcgggtgtt
SWB006 #3		-----
SWB006 #4	539	gggcctgcggatcattgatgaaccgcccgcgctantgcgttgatcatgatcccagcgaacacgcgggtgtt
SWB006 #1	407	gctgcctcgcagctgcgcgggcccggatgcccgcgctcttcgaaagcctcccacgaggtctccagcaacagt
SWB006 #2	575	gctgcctcgcagctgcgcgggcccggatgcccgcgctcttcgaaagcctcccacgaggtctccagcaacagt
SWB006 #3		-----
SWB006 #4	609	gctgcctcgcancctgcgcgggcccggatgcccgcgctcttcnaaagcctcccacgaggtctccagcaacagn
SWB006 #1	477	cgctgctgcgggtccatcaccaacgccttcct---
SWB006 #2	645	cgctgctgcggatccatcccctacgcttcct---
SWB006 #3		-----
SWB006 #4	679	cgctgntgcggatccat---cggctnntcncntant

Figure S1. Alignment of the polyketide-like gene sequences #1-4 from SWB006.

SWB004 #1 (part)	1	catcggcgagccgctcgaggatcaggacg	ccggcaccctcgggccagccgacgcggttggcggtggcccc
SWB006 #1	1	catcggcgagccgctcgaggatcaggaca	ccggcaccctcgggccagccgacgcggttggcggtggcccc
SWB004 #1 (part)	71	gaacgccttgacagcgccatcctcggacagcgcgccctgcgggttaaattcgatgaatgagccgggctg	
SWB006 #1	71	gaacgccttgacagcgccatcctcggacagcgcgccctgcgggttaaattcgatgaatgagccgggctg	
SWB004 #1 (part)	141	gccatcacgcgacgcgctggccagcgcgaggtcacactcacgctcgcgacagcgacgtgcggcgaggt	
SWB006 #1	141	gccatcacgcgacgcgctggccagcgcgaggtcacactcacgctcgcgacagcgacgtgcggcgaggt	
SWB004 #1 (part)	211	gggtggacaccaggaagagctgcaagccgtgtcgacggcgagggccgggccttcgagggccgaacacata	
SWB006 #1	211	gggtggacaccaggaagagctgcaagccgtgtcgacggcgagggccgggccttcgagggccgaacacata	
SWB004 #1 (part)	281	ggcgagccgacccgacgcgacgtgcggcgctcccgagcgcgacatggccg	gtcagggcctgcggatca
SWB006 #1	281	ggcgagccgacccgacgcgacgtgcggcgctcccgagcgcgacatggccag	tcagggcctgcggatca
SWB004 #1 (part)	351	ttgatgaaccgcccgcgtagtcgttgtacatgatcccgacgaacacgcgggtgttgctgccc	ccgcagct
SWB006 #1	351	ttgatgaaccgcccgcgtagtcgttgtacatgatcccgacgaacacgcgggtgttgctgcct	cgcagct
SWB004 #1 (part)	421	gcgcgggcccggatgcccgcgctcttcgagg	gcctcccacgaggtctccagcaacagtcgctgcnnnngggtc
SWB006 #1	421	gcgcgggcccggatgcccgcgctcttcgaaa	gcctcccacgaggtctccagcaacagtcgctgctgcgggtc
SWB004 #1 (part)	491	catctccagcgctccct	
SWB006 #1	491	catcaccaacgctccct	

Figure S2. Alignment of the polyketide-like gene sequences SWB004 #1 (shortened by the first 199 basepairs to obtain the same length) and SWB006 #1.

Table S1. Result of a Blast search performed with the sequence HM769729. The first 50 hits are given. (Analysis performed in July 2010).

Accession	Description	Max score	Total score	Query coverage	Max ident
NR_024807.1	Enhygromyxa salina strain SHK-1 16S ribosomal RNA, partial sequence >dbj AB097590.1 Enhygromyxa salina gene for 16S ribosomal RNA, strain:SHK-1	2619	2619	92%	99%
AB097591.1	Enhygromyxa salina gene for 16S ribosomal RNA, strain:SMK-1-3	2614	2614	92%	99%
FM242325.1	Uncultured delta proteobacterium partial 16S ribosomal RNA, clone 80 T9d-oil	2405	2405	93%	95%
GQ264310.1	Uncultured bacterium clone WW2_130 16S ribosomal RNA gene, partial sequence	2397	2397	92%	96%
NR_024795.1	Plesiocystis pacifica strain SIR-1 16S ribosomal RNA, partial sequence >dbj AB083432.2 Plesiocystis pacifica gene for 16S ribosomal RNA	2388	2388	93%	95%
AB016469.1	Myxobacterium SHI-1 16S rRNA gene, partial sequence	2367	2367	93%	95%
FJ152686.1	Uncultured bacterium clone TX1A_134 16S ribosomal RNA gene, partial sequence	2347	2347	93%	95%
DQ298325.1	Uncultured bacterium clone PR5 16S ribosomal RNA gene, partial sequence	2343	2343	87%	97%
GQ263705.1	Uncultured bacterium clone WC1_a18 16S ribosomal RNA gene, partial sequence	2342	2342	92%	95%
EU050860.1	Uncultured delta proteobacterium clone ss1_B_05_87 16S ribosomal RNA gene, partial sequence	2342	2342	91%	95%
GQ264292.1	Uncultured bacterium clone WW2_110 16S ribosomal RNA gene, partial sequence	2340	2340	92%	95%
AB303310.1	Myxobacterium SYR-2 gene for 16S rRNA, partial sequence	2291	2291	87%	96%
AB246767.1	Myxobacterium AT1-02 gene for 16S rRNA, partial sequence	2165	2165	77%	99%
AY921891.1	Uncultured delta proteobacterium clone AKYH963 16S ribosomal RNA gene, partial sequence	2156	2156	87%	94%
AB246768.1	Myxobacterium AT3-09 gene for 16S rRNA, partial sequence	2152	2152	77%	99%
AM997796.1	Uncultured deep-sea bacterium 16S rRNA gene, clone Ucb1556	2116	2116	93%	91%
CU466781.1	Environmental 16S rDNA sequence from Evry wastewater treatment plant anoxic basin	2116	2116	85%	94%
GQ263904.1	Uncultured bacterium clone WC2_154 16S ribosomal RNA gene, partial sequence	2105	2105	92%	91%
AB252740.1	Myxobacterium SMH-27-4 gene for 16S rRNA, partial sequence	2104	2104	93%	91%
GQ264079.1	Uncultured bacterium clone WC3_18 16S ribosomal RNA gene, partial sequence	2100	2100	92%	91%
FM242441.1	Uncultured delta proteobacterium partial 16S ribosomal RNA, clone 3 T12d+oil	2084	2084	93%	91%
GQ264000.1	Uncultured bacterium clone WC2_94 16S ribosomal RNA gene, partial sequence	2082	2082	91%	91%
FJ516809.1	Uncultured Haliangiaceae bacterium clone TDNP_Bbc97_52_2_118 16S ribosomal RNA gene, partial sequence	2076	2076	93%	90%
GQ263994.1	Uncultured bacterium clone WC2_86 16S ribosomal RNA gene, partial sequence	2066	2066	91%	91%
FM242327.1	Uncultured delta proteobacterium partial 16S ribosomal RNA, clone 39 T9d-oil	2046	2046	93%	90%
HM134870.1	Uncultured Myxococcales bacterium clone Ro-31 16S ribosomal RNA gene, partial sequence	2039	2039	83%	94%
EU236309.1	Uncultured bacterium clone Hg1a2H2 16S ribosomal RNA gene, partial sequence	2035	2035	87%	92%
EF092197.1	Uncultured Myxococcales bacterium clone Ax29_C4 16S ribosomal RNA gene, partial sequence	2031	2031	87%	92%
EF092189.1	Uncultured Polyangiaceae bacterium clone Ax26_F7 16S ribosomal RNA gene, partial sequence	2030	2030	86%	92%
FM242374.1	Uncultured delta proteobacterium partial 16S ribosomal RNA, clone 35 T9d+oil	2026	2026	93%	90%
FJ479170.1	Uncultured bacterium clone p9i23ok 16S ribosomal RNA gene, partial sequence	1992	1992	93%	89%
AJ233945.1	Nannocystis aggregans 16S rRNA gene, strain Na a1	1990	1990	95%	89%
AJ233947.1	Nannocystis exedens 16S rRNA gene, strain Na e571	1984	1984	95%	89%
AB084253.1	Nannocystis exedens gene for 16S ribosomal RNA	1961	1961	93%	89%
EF092171.1	Uncultured Myxococcales bacterium clone AC3_C5 16S ribosomal RNA gene, partial sequence	1950	1950	86%	91%
EU283398.1	Uncultured delta proteobacterium clone AS105 16S ribosomal RNA gene, complete sequence	1943	1943	91%	89%
EU104236.1	Uncultured bacterium clone N1512_68 16S ribosomal RNA gene, partial sequence	1941	1941	91%	89%
EU050859.1	Uncultured delta proteobacterium clone ss1_B_04_35 16S ribosomal RNA gene, partial sequence	1938	1938	91%	89%
AF280855.1	Uncultured bacterium mle1-22 16S ribosomal RNA gene, partial sequence	1934	1934	95%	88%

Accession	Description	Max score	Total score	Query coverage	Max ident
AY996823.1	Nannocystis sp. 91213 16S ribosomal RNA gene, partial sequence	1925	1925	92%	89%
DQ889889.1	Uncultured Enhygromyxa sp. clone EC130 16S ribosomal RNA gene, partial sequence	1921	1921	94%	89%
EU834798.1	Uncultured bacterium clone OTUc49 16S ribosomal RNA gene, partial sequence	1920	1920	91%	89%
M94279.1	Nannocystis exedens 16S ribosomal RNA gene, complete sequence	1882	1882	92%	88%
FM209097.1	Uncultured Myxococcales bacterium partial 16S rRNA gene, clone delph1H10	1871	1871	87%	89%
GQ500728.1	Uncultured bacterium clone MACA-CC37 16S ribosomal RNA gene, partial sequence	1865	1865	94%	87%
EU134550.1	Uncultured bacterium clone FFCH2652 16S ribosomal RNA gene, partial sequence	1860	1860	84%	90%
EF999380.1	uncultured bacterium clone MidBa41 16S ribosomal RNA gene, partial sequence	1855	1855	93%	87%
EU134377.1	Uncultured bacterium clone FFCH5592 16S ribosomal RNA gene, partial sequence	1799	1799	85%	88%
HM275877.1	Uncultured bacterium clone ncd512h02c1 16S ribosomal RNA gene, partial sequence	1786	1786	85%	89%
HM304978.1	Uncultured bacterium clone ncd844a10c1 16S ribosomal RNA gene, partial sequence	1783	1783	85%	89%