**A.**

110

0320ext ATGCATGCGATCCACGTGGCCTCGTTCGGTGCTCCGGACGTGCTGAGCCTGGTCGACCTGCCCGATCCCGTGCCCGGCCCCGGCCAGGTCGTCGTCGGTATGGTCGCGGC

SLI\_0274 ATGCATGCGATCCACGTGGCCTCGTTCGGTGCTCCGGACGTGCTGACCCTGGTCGACCTGCCCGATCCCGTGCCCGGCCCCGGCCAGGTCGTCGTCGGTATGGTCGCGGC

SCO0320 --------------------------------------------------------------------------------------------------------------

\*

220

0320ext CGACGTCATCTTCCTGGACACGCTGCTGCGCGGCGGCTGGGGTCAGGACTTCTTCCCGCGCACGCTGCCGTACGTGCCGGGTGGCGGCGGGGCGGGCGAGGTGCTGGCAG

SLI\_0274 CGACGTCATCTTCCTGGACACGCTGCTGCGCGGCGGCTGGGGTCAGGACTTCTTCCCGCGCACGCTGCCGTACGTGCCGGGTGGCGGCGGGGCGGGCGAGGTGCTGGCAG

SCO0320 --------------------------------------------------------------------------------------------------------------

330

0320ext TCGGTGACGGAGTGGACCCGGGCTGGGTCGGCCGGAGTGTGGTCGTGAGAACCGGGACCGGATACGCCGAACAGGTCGTCGCGAGTGCGCAGGAGATCATGCCGGTTCCC

SLI\_0274 TCGGTGACGGAGTGGACCCGGGCTGGGTCGGCCGGAGTGTGGTCGTGAGAACCGGGACCGGATACGCCGAACAGGTCGTCGCGAGTGCGCAGGAGATCATGCCGGTTCCC

SCO0320 --------------------------------------------------------------------------------------------------------------

440

0320ext GCTGGGCTGGCCGCGGTGACGGCCGCCGCACTGGTGCACGACTGCGTGACCGCTCTCGGCTTCCACCGGCTGGGGGCGCCACAGAAGGGGGAATGGGTCCTGGTCTCGGC

SLI\_0274 GCTGGGCTGGCCGCGGTGACGGCCGCCGCACTGGTGCACGACGGCGTGACCGCTCTCGGCTTCCACCGGCTGGGGGCGCCGCAGAAGGGGGAATGGGTCCTGGTCTCGGC

SCO0320 --------------------------------------------------------------------------------------------------------------

\* \*

550

0320ext GGCGGCCGGCGGGGCGGGCACCCTGCTGGTGCAGTTGGCGGTCGACGCGGGGG-CCGGGTGGTGGCCGCCGCGTCCAGCGACGCCAAGCTGGCTCTGGCCCGCGATCTGG

SLI\_0274 GGCGGCCGGCGGGGCGGGCACCCTGCTGGTGCAGTTGGCGGTCGACGCGGGGGCCCGGGTGGTGGCCGCCGCGTCCAGCGACGCCAAGCTGGCTCTGGCCCGCGATCTGG

SCO0320 ----------------------------------------------------------GTGGTGGCCGCCGCGTCCAGCGACGCCAAGCTGGCTCTGGCCCGCGATCTGG

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660

0320ext GCGCCGAGGTCGTCGTCGACTACACGCGGGCGGACTGGGTCGAGCGGGTGCGCGAGGCGACCGGTGGCGGCGCCGCGCTCGTCTACGACGGCGCGGGCGGGGCGCTCGGT

SLI\_0274 GCGCCGAGGTCGTCGTCGACTACACGCGGGCGGACTGGGTCGAGCGGGTGCGCGAGGCGACCGGTGGCGGCGCCGCGCTCGTCTACGACGGCGCGGGCGGGGCGCTCGGT

SCO0320 GCGCCGAGGTCGTCGTCGACTACACGCGGGCGGACTGGGTCGAGCGGGTGCGCGAGGCGACCGGTGGCGGCGCCGCGCTCGTCTACGACGGCGCGGGCGGGGCGCTCGGT

770

0320ext GCGACCAGCGTCGACGCGCTCGCGGACGGCGGGCGCTTCGTCACCTACGGGACCGCCGACGGATTCGCCGCCCCGGACCGGGAATCCGCCGCGCGCCGGGGCATCCGGCT

SLI\_0274 GCGACCAGCGTCGACGCGCTCGCGGACGGCGGGCGCTTCGTCACCTACGGGACCGCCGACGGATTCGCCGCCCCGGACCGGGAATCCGCCGCGCGCCGAGGCATCCGGCT

SCO0320 GCGACCAGCGTCGACGCGCTCGCGGACGGCGGGCGCTTCGTCACCTACGGGACCGCCGACGGATTCGCCGCCCCGGACCGGGAATCCGCCGCGCGCCGGGGCATCCGGCT

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880

0320ext GCTCATGCCGCTCATGGACGGCCCTCCGGACCAGGAGACCGCCCGGGAACTGCTGGGCCTGGCGCTGGAGAGCGCCGCCGAGGGACGCCTGCGCCCGGCCATCGGCGCCA

SLI\_0274 GCTCATGCCGCTCATGGACGGCCCTCCGGACCAGGAGACCGCCCGGGAACTGCTGGGCCTGGCGCTGGAGAGCGCCGCCGAGGGACGCCTGCGCCCGGCCATCGGCGCCA

SCO0320 GCTCATGCCGCTCATGGACGGCCCTCCGGACCAGGAGACCGCCCGGGAACTGCTGGGCCTGGCGCTGGAGAGCGCCGCCGAGGGACGCCTGCGCCCGGCCATCGGCGCCA

957

0320ext CCTACCCGCTGGCGCGGGCCGCGGACGCCCACCGCGCTCTGGCGGCGCGTACGACGGTGGGCAAGTCACTGCTCCTGA

SLI\_0274 CCTACCCGCTGGCGCGGGCCGCGGACGCCCACCGCGCTCTGGCGGCGCGTACGACGGTGGGCAAGTCACTGCTCCTGA

SCO0320 CCTACCCGCTGGCGCGGGCCGCGGACGCCCACCGCGCTCTGGCGGCGCGTACGACGGTGGGCAAGTCACTGCTCCTGA

**B.**

\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*:\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*

SCO0320ext MHAIHVASFGAPDVLSLVDLPDPVPGPGQVVVGMVAADVIFLDTLLRGGWGQDFFPRTLPYVPGGGGAGEVLAVGDGVDPGWVGRSVVVRTGTGYAEQVVASAQEIMP

SLI\_0274 MHAIHVASFGAPDVLTLVDLPDPVPGPGQVVVGMVAADVIFLDTLLRGGWGQDFFPRTLPYVPGGGGAGEVLAVGDGVDPGWVGRSVVVRTGTGYAEQVVASAQEIMP

SCO0320 ------------------------------------------------------------------------------------------------------------

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SCO0320ext VPAGLAAVTAAALVHDCVTALGFHRLGAPQKGEWVLVSAAAGGAGTLLVQLAVDAGAGWWPPRPATPSWLWPAIWAPRSSSTTRGRTGSSGCARRPVAAPRSSTTARA

SLI\_0274 VPAGLAAVTAAALVHDGVTALGFHRLGAPQKGEWVLVSAAAGGAGTLLVQLAVDAGARVVAAASSDAKLALARDLGAEVVVDYTRADWVERVREATGGGAALVYDGAG

SCO0320 ----------------------------------------------------------VVAAASSDAKLALARDLGAEVVVDYTRADWVERVREATGGGAALVYDGAG

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SCO0320ext GRSVRPASTRSRTAGASSPTGPPTDSPPRTGNPPRAGASGCSCRSWTALRTRRPPGNCWAWRWRAPPRDACARPSAPPTRWRGPRTPTALWRRVRRWASHCS

SLI\_0274 GALGATSVDALADGGRFVTYGTADGFAAPDRESAARRGIRLLMPLMDGPPDQETARELLGLALESAAEGRLRPAIGATYPLARAADAHRALAARTTVGKSLLLMGGE

SCO0320 GALGATSVDALADGGRFVTYGTADGFAAPDRESAARRGIRLLMPLMDGPPDQETARELLGLALESAAEGRLRPAIGATYPLARAADAHRALAARTTVGKSLLLMGGE

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**Figure S2.** Sequence alignment of *SCO0320ext* and *SCO0320* with the quinone oxidoreductase *SLI\_0274* from *S. lividans.*

A) Nucleotide alignment of the three genes from *Streptomyces.* Mismatches are indicated by an asterisk below the alignment; a deletion is indicated by a colon. B) Amino acid sequence alignment of the predicted open reading frames of the same genes. Identical residues are indicated by an asterisk; conservative substitutions by a colon; non-conservative substitutions by an exclamation point. *SCO0320ext* and *SLI\_0274* are highly conserved in the amino-terminal half (identical amino acids shown above the alignment); while *SCO0320* is identical to the carboxy-terminal half of *SLI\_0274* (identical amino acids shown below alignment).