

I M E E L K E N L Y V L P S R I L Q E I S S A S S E P V D A V
 1 **ATG**GAGGAACCTGAAGGAGAATCTGTACGTCTTACCCTCGCAATTTTGCAAGAGATTAGCTCTGCTTCATCGGAGCCCGTTGATGCGGTT
 31 I F V G I S L A L G I A C R H I F R G T K V P Y T V A L L I
 91 ATCTTCGTTGGGATTTCTCTGGCATTAGGAATTGCTTGCCGACATATTTCCGCGGTACCAAAGTCCCTACACTGTCGCTTTGCTTATC
 61 I G I G L G S I E Y G T S H K L G R I G D G I R I W N N I D
 181 ATTGGCATCGGTCTCGGCTCTATTGAATATGGTACAAGTCATAAATTAGGAAGGATTGGAGATGGTATTTCGTATTGGAACAACATTGAT
 91 P D L LL A V F L P A L L F E S A F S M E V H Q I K R C M A
 271 CCTGACCTTCTATTAGCTGTTTTCTACCTGCTTTACTTTTTGAGAGTGCAATTTCTATGGAAGTGCACCAGATAAAGAGGTGTATGGCA
 121 Q M V L L A G P G V L I S T F C L G S A L K L T F P Y K W D
 361 CAAATGGTTCTACTGTGCTGGTCTGGAGTTCTTATTTGACCTTCTGCCTGGATCTGCTCTGAAGCTCACTTTCCATACAAGTGGGAC
 151 W K T S L LL G G L L S A T D P V A V V A L L K D L G A S K
 451 TGGAAAACATCGCTGTTGCTTGGGGGACTTCTTAGTGCCACTGATCCTGTTGCTGTTGTGGCATTATTGAAGGATCTTGGTGTAGCAAA
 181 K L S T I I E G E S L M N D G T A I V V Y Q L F Y K M V L G
 541 AAAGTGAAGCACCATAATTGAAGGCGAATCCTTGATGAATGATGGGACAGCAATTGTGGTCTATCAGTTATTCTATAAAATGGTACTGGGA
 211 K S F S W D A I I E F L A K V S L G A V A V G I A F G I A S
 631 AAGAGCTTAGTGGGATGCCATTATTGAATTTCTGGCCAAAGTCTCACTTGGAGCCGTTGGCGGTTGGAATGCTTTTGGGATAGCATCA
 241 V L W L G F I F N D T V I E I T L T L A V S Y I V Y F T A Q
 721 GTTTGTGGCTCGGATTTATTTCAATGATACAGTGATTGAGATTACATTGACACTTGTGTGAGCTACATTGTTTACTTCACTGCTCAA
 271 E G I E V S G V L A V M T L G M F Y A A V A K T A F K G D S
 811 GAAGGTATTGAAGTTTCCGCGTGTGGCAGTGATGACATTAGGAATGTTTTATGCGGCTGTGCAAAGACAGCCTTAAAGGTGATAGC
 301 Q Q S L H H F W E M V A Y I A N T L I F I L S G V V I A E G
 901 CAGCAGAGCTTGACCACCTTTTGGGAAATGGTTGCCTATATGCAAATACATTAATTTTCATCCTGAGTGGGGTGTATAGCTGAGGGC
 331 I L G D D K I F H N N E H S W G Y L I L L Y I F I Q V S R C
 991 ATTCTTGGCGATGATAAGATATTTTCATAACAATGAACATTCTTGGGGCTATCTGATTCTTTTGTACATCTTTATCCAAGTATCAGCGTGC
 361 I V V G A L Y P F L R Y L G Y G L D L K E A V I L I W S G L
 1081 ATTGTTGTTGGAGCATTATATCCATTTTACGATATCTTGATATGGTTTGGATTAAAGGAAGCCGTATCCTAATATGGTCAGGGCTT
 391 R G A V A L S L S L S V K R S S D G S Q Y I S S E T G S L F
 1171 CGAGGGGCTGTGCAATTACACTTCTCTATCTGTAAAGCGTCCAGTGACGGCTCACAATATATCAGTTCTGAAACAGGAAGCCTGTTT
 421 I F F T G G I V F L T L I V N G S T T Q F V L H F L D M D K
 1261 ATTTTCTCACTGGTGAATGTATTCTTGACACTTATTGTGAACGGATCAACTACACAGTTCGTTTACATTTTCTGGATATGGATAAA
 451 L S A A K K R I L D Y T K Y E M L N K A F E A F E D L G D D
 1351 CTATCAGCAGCCAAGAAGCGTATTCTGGACTACAAAAGTATGAAATGTTGAACAAAGCATTGAGGCTTTTGAAGACCTTGAGATGAT
 481 E E L G P A D W P T V K R Y I A S L N D L E G D P V H P H T
 1441 GAGGAACCTGGACCTGCTGATTGGCCACGGTAAAGAGATACATTGCAAGCTTAAACGATTGGAGGGGGACCCTGTGCATCCTCACACT
 511 E S E A D N N L D P S N L K D I R V R L L N G V Q S S Y W G

1531 GAATCTGAAGCTGATAATAATCTGGACCTTCAAATTTGAAAGATATACGAGTACGGCTTTTAAATGGTGTCAGTCATCATACTGGGGA
541 M L D E G R I S Q T T A N L L M Q S V D E A I D V A S H E P
1621 ATGCTTGATGAAGGGAGAATTTCAAACTACAGCAAATCTATTGATGCAATCTGTAGATGAAGCTATTGATGTGGCATCTCATGAACCT
571 L C D W K G L K S N V H F P N Y Y K F L Q S S M F P Q K L I
1711 TTATGTGATTGGAAGGGCTTAAATCTAATGTTCATTTCCAAATTAATTACAAGTTTCTTCAGTCAAGTATGTTCCCTCAAAACTGATT
601 T Y F T V E R L E N A C C V C A A F L R A H R I A R R Q L H
1801 ACGTATTTCACTGTGAAAAGGCTGAAAATGCATGCTGTGTTTGTGCTGCATTTCTTCGAGCTCATAGAATTGCACGACGGCAGCTTCAT
631 E F I G D S V V A S T V I S E S E A E G E E A R K F L E D V
1891 GAGTTTATAGTGACAGTGTGTGCTTCTACTGTAATTTCTGAAAAGTGAGGCTGAAGGAGAAGAGCAAGGAAGTTTTGGAAGATGTC
661 R I T F P Q V L R V V K T R Q V T Y S V L N H L I E Y L Q N
1981 CGTATAACTTTTCCGAGGTTTTGCGTGTGTTAAGACAAGCAAGTTACCTACTCGGTATTGAACCATCTGATTGAGTATTACAAAAC
691 L E K V G L L E E K E M L H L H D A V Q T D L K K L L R N P
2071 CTCGAGAAGGTTGGGTACTGGAAGAAAAGAAATGCTTCATCTTCATGATGCTGCCAGACTGACTGAAGAAGCTTTAAGGAATCCT
721 P L V K I P K I N D L I S A H P L L G A L P S T I C E K L L
2161 CCCTTGGTAAAGATTCCGAAGATAATGATCTAATAAGTGCCATCCTTTGCTAGGCGCCCTCCTTCTACTATCTGCGAGAACTATTA
751 G Y T K E K M K T R G M T L Y K E G S K S N G I W L V S N G
2251 GGTATACAAAAGAAAAATGAAAACCTCGTGGTATGACACTTTACAAAAGAGGCTCTAAATCAAATGGTATTGGCTAGTTTCAAACGGT
781 V V K W T S R S I R N K H S V H P T F S H G S T L G L Y E V
2341 GTTGTCAAGTGGACGAGTAGGAGCATAAGAACAAGCATTGATGATCCAACTTTTAGTCATGGGAGTACGTTGGGCTTGTACGAAGTA
811 L V G K P Y I C D M V T D S V V L C I F I E S D R I L S V L
2431 TTGGTTGAAAACCATACATCTGCGACATGGTCACAGATTCCGTTGCTCTGATTTTTATTGAGAGTGACAGAATACTTTCAGTACTA
841 R S D P D I E D F L W R E S A L V L A K L L V P Q I F E K M
2521 AGGTCGGATCCTGACATAGAAGATTTCTCTGGCGGAAAAGTGCTTGTCTCGCCAACTCTGGTTCCTCAAATATTGAGAAAATG
871 A L H D L R A L V A E R S S M K T Y I A G E T I E V S H Q L
2611 GCACTGCACGATTTAAGAGCTCTGTAGCAGAAAGTTCGTCGATGAAGACATACATTGCAGGGGAAAACAATAGAAGTGTACACCAATTG
901 I G F L L E G F A K P L L A Q E E L I T S P A V L L P S Q G
2701 ATGGCTTCTTGTGGAAGGGTTCGCGAAACCTTTACTTGCTCAAGAAGAAGTCAATCACATCACCAGCAGTCTTTTGGCTTCAAGGG
931 N Q S F L Y A D K S G S A T T S F S H Q R S G Y Q L E T R G
2791 AATCAAAGTTCTTATATGCAGATAAATCAGTTCTGCAACAACAGCTTTTCTCATCAGCGATCTGGGTATCAACTGAGACAAGAGGA
961 S I I Y Q V E T R A R A I I F D I A T L E A N R V L R R N S
2881 AGCATAATATATCAAGTTGAGACTAGAGCAAGAGCAATATTTTTGATATTGCAACACTGAAGCCAATAGAGTTTTGCGGAGAAAATTC
991 S S F T H S H K S L I R E H G G L M S W P E N F F S G R Q H
2971 TCCTCATTACCATTACACAAAAAGTTAATTAGAGAACATGGGGTCTTATGAGTTGGCCTGAAAATCTTTCAGCGGAAGACAACAT
1021 T Q N H E E S D Q Q V N S L S A R A M Q L S I F G S T V D L
3061 ACACAAAATCATGAAGAAAGTATCAACAAGTAAACAGCTTATCTGCAAGAGCCATGCAGTTAAGCATCTTGGCAGCAGGTTGATTG
1051 P R R S R S L S R M H Q S K P A Y N R S Y D R I L S F P G H
3151 CCACGGCGCAGCGGAGTTTATCAAGGATGCATCAATCTAAACCAGCATACAACGGTCATATGATAGAATTCTTTCATCCCTGGACAT
1081 P L V S G R S E G S V T M R K N L E E G R K I T R P L P P A
3241 CCACTGGTTTCTGGCAGATCAGAAGGATCTGTTACAATGAGGAAGAATCTCGAAGAAGGGAGAAAAGATAACAAGACCGTTACCCCCGCA
1111 Q A K N T D S K E G H G N D E S D E D E I L V R I D S P S G
3331 CAAGCGAAGAACCGGACTCGAAAGAGGGCCACGAAATGATGAAAGTATGAAGATGAAATCCTGGTGAGGATCGATTGCGCTAGCGGA
1141 L S F N Q A S *

3421 CTATCATCAACCAAGCTTCT**TGA**

Supplementary Figure 1: The ORF nucleotide sequence and the deduced peptide sequence of

KvSOS1. Start codon and termination codon highlighted in red.