

TGGTCGTACCTGCATCGTCGTACACATCGCTCATTTCTACCTTGCACACATCTCTTGGCTCGTCACACTCTCATATCGCTCGGGTACTCGACTTTTCGTGACACAA  
TCTCGTACGCTTCGGACCATCTCTAGCGAACAGCTTCGAATTCGCTCGACACCTTATATCGTGGCCGGTTCGA

181 - ATGGCCACTAACCAGCAGCGACTTCGTTTATAAATCACAACATGTTTATTTGATTTTTCGTCTCGCTCTTGTGGCCGATGGCGAACGAAGGTGCCGCG  
1 - M A T N R H A T S F I N H N M F I C I F V S L L L P M A N E G A A  
280 - AATGTGTACGGTGACAGCCGAAGTTTCCGAACGATGACGGAGGGAAAAGATTGTCGAGGGAATACCACCTGAGACAGGGTGCCTTAGAGGATTGATA  
34 - N V Y G D S R S F P N D D G G K R L S R E Y H L R Q G A L R G L I  
379 - GTGAAACCAAGTCGGCAGTATGATTTTCAGTATGTGAAATGTTTCTTGGCATAACCGTATGCTGCTCCGCGCAGGGGCACCTAAGTTTATGCCACCA  
67 - V K P S R Q Y D F Q Y V E M F L G I P Y A A P P T G H L R F M P P  
478 - GTCAGCGCCCCACCATGGCCTGGAGTGAAGATGGCGACACGTTTCGCCCTGTCTGTCCCCAGTCACTCCCTCCCATCAAGAAGGGGAACCCCTCCATCA  
100 - V S A P P W P G V K M A T R F A P V C P Q S L P P I K K G N P P S  
577 - TCAGGTCGGCAGCACTACTTGAACCAGCTGAAGACATTCCTCACTAATGAATCTGAAGACTGCCTGTACTTGAATATTTATGTTCTTATAGAGAACAA  
133 - S G R Q H Y L N Q L K T F L T N E S E D C L Y L N I Y V P Y R E A  
676 - AAAACAAGAAGTTTCCGCTCTGGTTCATACACGGTACTCCTTCGAGTGGAGTTCTGGCAACCCTTATGATGGACGGATGCTGGCCTCGTACGGG  
166 - K T K K F S V L V F I H G D S F E W S S G N P Y D G R L A S Y G  
775 - AATGTCATGGTCATCACTGTCAACTTCAGACTGGGAATTTGGGTTTCATGAAGCCAAAGCCTAACAGAACACGTGTATGGTAACAACGGGTGCTAGAT  
199 - N V M F I T V N F R L G I L F A P V C P S L T E H V Y G N N G L L D  
874 - CAGTGGCAGCACTCCAGTGGATCAAGGATAATATTGAGGATCTAAACGGAGATCCATCATCAGTTACCTTGATGGGACATGGCACTGGAGCAGCTGT  
232 - Q L A A L Q W I K D N I E D L N G D P S S V T L M G H G T G A A C  
973 - GTTAATTTCTTGATGCTTTCTCTATATCAAAATGGGTTATTCATCGAGCAACTACTGATGTCGGGTCTCGCTATCAGACTGGCAATGACAAAGGAC  
265 - V N F L M L S P I S N G L F H R A I L M S G S A L S D W A M T K D  
1072 - CCAACGCCGTATACACTACAAGTGGCCAGAGTTGGGCTGCAATCTAGCTCTAAGAATATGATGGCTTGGTTCGAGAAGAAACCATTATCAGAAATC  
298 - P T P Y T L Q V A Q S L G C N P S S K N M M A C L Q K K P L S E I  
1171 - AAAAAAGTCCAGATCTTAGCCCGAGAGTTGAGACACCCTGGTCTGTGTAGCTGGCTCGTTCATACCGAATGAGCCAGCAAGACTATGGAGTCT  
331 - K K V Q I L A R E F E T P L G P V V A G S F I P N E P A K T M E S  
1270 - TATCCGAATCTGTTGAGCAAAATCAACTTCTAAGCGGTGACAGAAAATGAAAGGTATCAGACTTCGGCGTAATTGAGTTAGAGCATGGAGTGCTA  
364 - Y P N L L S K Y Q L L S G V T E M E R Y H D F G V I E L E H G V L  
1369 - GAGAACCAAGAGATGACTTTATCAAGAAGTATGCTAAGATCATCTTTGAAGTGCAGAGGATGAAACGCTGAAGTCTATTTTGAAGAATATGCACCA  
397 - E N Q R D D F I K K Y A K I I F E G A E D E T L K S I L K E Y A P  
1468 - TCGAAGTTAGACCCCGAGCGTGAACGTGGAGGCCAACCGAGAGCTTATCTGAACATGTTTCAGTACGCTCGACTTTGGCCCCGCTATCCGCTTC  
430 - S K L D P Q R W N V E A N R D V I L N M F S D A R T L A P V I R F  
1567 - GCCAACTATCAGTCGAAGGCCAACCGTCACTTCTACTTCTATGTCTTTGGACATAATCTATCAGCTCGGATTACGCTGCGCTCAACAAAAGCGTACAA  
463 - A N Y Q S K A N R H S Y F Y V F G H N S I S S D Y A A L N K S V Q  
1666 - GGTCAGGAATTCGCCATGATTCGGTGTCCACTTGGAGCTACGAAACCGCACTTCAGTCCGACTACACCCAGCAGGAGAAGTTACTCAGTGAAGTC  
496 - G Q E L P Y V F G V P L G A T N T H F S P D Y T Q Q E K L L S E V  
1765 - CTCATGAGGATGTTGACCAACTTCGTCAAAATATGGGCTCCCAACTCACAGGCTCCAGTCAAGTTCTACAATTTGGATAGAAGCATTGGAGCCTCTAT  
529 - L M R M W T N F V K Y G S P N S Q A P V K F Y N L D R R H W S L Y  
1864 - GATCTTGACTGGCCAGAATACGACAGTACTGGACAGTACATAAAGTTTCGACATCCACCTGAAGTAGATACGTCATACCCGTCAAAATATACCAAG  
562 - D L D W P E Y D S T G Q S Y L R F D I P P E V D T S Y R S N Y T K  
1963 - TTTTGGATGGACACATTACCAAAACAAGATGAGCAAATACGTAGTGGATCCTCTATTTGAGTACACACCCTCCTTCTCGCCGAGGCCAAAATCACT  
595 - F W M D T L P N K M S K Y V V D P L F E Y T P P P S S P R P K I T  
2062 - CACAGAAATACTGCAGGAAATACGGGTGGGAGTGCAGGAGGAAATTCAGACCCAGGCGGTAGAATTTGGACACCGCATGTGCCAGAAACGCCACACTAT  
628 - H R N T A G N T G G S A G G N S D P G R R I W T P H V P E T P H Y  
2161 - TCCTCATCATCAATATATGGGAGAATGCGTCCGTATTCGACGCCAGTACATAAGCCAGACACCAATGTTATATACAAGGAGATTATGCTATCGAGAAG  
661 - S S S S I Y G R M R P Y S Q P V H K P D T N V I Y K E I M S I E K  
2260 - CCTTCGCGACCTGTTCCATCAGGATTAATTGAAAAACCTTCTATATACTACTACACCCAAACCTAAAGCCAAACATGTCGTAACCAAGCTCCAGCGCG  
694 - P S R P V P S G L I E K T F L Y T T T P K P K A N M S V K T S S A  
2359 - ACCATTACATTGATAGTCTCGTTAGCTATTCTCTTCTCGCCGTCACAGTTGGAATTTGCTCTATATTGATTTCAAAAAACGGAAGCTCAGACTACGG  
727 - T I T L I V S L A I L F L A V N V G I C S I L Y F K K R K L R L R  
2458 - GAACAACCACTCGAGAGTTCTCATCAGCCGCGCTGAAATAGGCGAAGTGGATGTAATCGGTCAAAAGAGCTCGAAGGACGACAAAAGCGCTTTGCAA  
760 - E Q T L E S S H Q P R A E I G E V D V I G Q K S S K D D K S A L Q  
2557 - ACTCTAAAAACCGCTGACGCTCATCAAGTCGATGAGTTTTAATAAAAAAGAAAAATAATTTAAGAAACATAAAAAAGAAATCGGATGCTGTAAAAACG  
793 - T L K N G C S V I K S M S F N K K K N N S K K H K K K S D V C K T  
2656 - CCGAAGTCTGATGACTCAGGTGGATTGAGAGAGATTTAAGCTAAGACGGCACTTATCAACAGTACTCTGGACGCTCATACTAAAGTTAGGGACTGG  
826 - P K S D D S G G F R E R F K L R R H L S T S T L D A H T K V R D W  
2755 - ATTGCCAATGAAATGATGCATCGATGTTCCCGAGTATACTAAGAAAAACAACTCTGATTTAAACGAAAAGCATTTCGACTGTGACAAAAGCCCTTCACT  
859 - I A N E M M H R C S P G I L R K S N S D L N E K H S T V T K P F T  
2854 - AGATCGGAAGAACTACTTTTCAGACACAAAAGAAAAACAAAAAGATACCATACTGATGAATGACAGCGTAAATTCGAAGAGTTTTGCGTCAAAAAACATAC  
892 - R S E E L L S D T K K N K K D T I L M N D S V N S K S F A S K T Y

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2953 - AGTAAACTAGAACTTCTGAGAAAACATCCACGTCGGCATTAGGCTCGCATTTCATCCATAGAAAAGTCATAAGCAATCACTCAACAGTATTAACAA
925 - S K T R T S E K T T S T S A L G S H S S I E S H K Q S L N S I K Q

3052 - ACAAGTAAATCAAAATGAATCCATAAAAAAGTAAAGCTACTGAAAAGTATTAAGTCTAAAAAGTGTCCAGTAGCTATCGATGCTACACCTGCAGCTCGAACT
958 - T S K S S N E S I K S K A T E S I K S K K V S V A I D A T P A A R T

3151 - CACTCCATATTAATCAAGAACCAATCGAAATATCGAAATCATTTCGACGCTGGTGACCAAAATACATTCGAATAAAGTCGAAAAATCAACGGAAGTTGAA
991 - H S I L N Q E P I E I S K S F D A G D Q I H S N K V E K S T E V E

3250 - TTTAAAGTCCAAAGTACTATCGATCCAATGAAGAATGAACAAACGTTTCAAAATGTTGTAACCTCTATCAGTTCAAGATAAACCTTTGGTAATTAATCTCAC
1024 - F K A P S T I D P M K N E Q T F T N V V T L S V Q D K P L V I T H

3349 - AAGCATTCTCATCTGATCCAGTTACTGATGTGAATTATGATAAATTACTAGAAAAGATGGAGTCTGCTAATCTTGCAAACTTTTACCACCTGTGCTACT
1057 - K H S S S D P V T D V N Y D K L L E K M E S A N L A N I L P P V T

3448 - TTCAGAAATGATATAAATGTGACTTCTCGTGAAGAAAGTTCACAAGTTAATCCAATGACAGCTGAAGAAGCCTTATTGACTATCAAAAAGAGGAATTTT
1090 - F R N D I N V T S R E E S S Q V N P M T A E A L L T I K R N F

3547 - CCTAAAGTATTACCTGATTTGCCAAAGGCGCAAAAGCGTTTATCACTTCAACCGGCGTCTGTCGTAACCTTTTCGTTGGATATTCGTCATGGATGATCGT
1123 - P K V L P D P L P K A Q K R L S L Q P A S L Q T F R G Y S S M D G R

3646 - CCTAAGTCCCACCGCAGCCCCCGCCGAGAACTACGACTTTAGAGAGACGCTCTGCATACAAAAACACGAAACCATTCTCTGTTTGTGCTTCCGGT
1156 - P K V P P Q P P P R T T T L E R R L A Y K N T K P L S S F D A S G

3745 - GTTAAAGAATAAATGAAGACACTGTTAAAAATTATGAAAACATCGATAGTTTGTACCTTACACGTATTCTGCAGCGACATCGCGTAATGCTTCTCTTC
1189 - V K R I N E D T V K N Y E N I D S L S P Y T Y S A A T S R N A S F

3844 - GACAGTAGTAAAGCGGAAACGCTCTATTATATTGACAAAAGACAGAGAGATTCCTCGAGTCATAATAGCATCTAGTGACTTGCCTTCCGCGCAAGAACC
1222 - D S S K A E T S I I L T K D R E I P R V I I A S S D L P S A Q E P

3943 - AGAATAGTAATCACACCATCGCCACGCCAGGTCGAGATACCTACAATGCGCCAGGGTTCGTTCTACCTGCTGATTTCCACGTCGAAGCTGGATCACTC
1255 - R I V I T P S P S Q V E I P T N A P R V R L P A D F H V Q A G S L

4042 - ACGTCTTTCTCATCGTTTTTGTCTGATGAAGATGACGATGACGACATTGATATGATGAAGAATTTGAAGATAAACTCATAACAAGAATTGGTTGGTGGC
1288 - T S F S S F C S D E D D D D I D I D E E F E D K L I Q E L V G G

4141 - GTTGATTACCAACAACATGGATGACGTATTAGATTCTAAGGGCCCGACTCAATTTTTGAGAAGAATTTGAAATTTGTACCTGTAAAAATTAATCCC
1321 - V D S P T N M D D V L D S K G P D S I F E K K L E I V P V K I N P

4240 - GGTATAGTAGTTCCATAAAAAGAAAGATTACGTATGTGTTAGTGATTTATTTTTACCAGACGCTGGTGATTTAGAAAAAACTGCCAAATAAAAACCA
1354 - G I V V P K K K E D Y V C V S D L F L P D A G D L E K T A Q I K P

4339 - AATTTTGGTTTAAACAACATGCAGCATAGGACAGATAGCATAAATAGGCCACCAGAAAAAGCAGTTAAATGAAACAAGGAAGAGCATAAGAACGCTC
1387 - N F G L N K L Q H R T D S I N R P P E K A V K M K Q R K S I R T P

4438 - TCTATTTTGAACCGTAGTGCTAAAGGTAGAGGTAGTATAAAGTAGAGATGATTCAGTGAACTGGAACATTCTAATTCAGGTTCTTCCAATGATACT
1420 - S I L N R S A K G R G S D K S R D D S V K L E H S N S G S S N D T

4537 - GAAACAAGCACAGGGACTGTGAAAAAGGTAGAATTCAAGAAAGGT
1453 - E T S T G T V K K V E F K K G

TAAATCTCGTCGACACATGCCGCTGGAACAATGCTCGTGAACATGCGTCAACGCTGCTCTCGTGAACATGCTCGACAATGCTCATCGTCGAACTTGCTGCCTGA
ACACACTCGTCGTCAACTACACTGCTCATGCTACTCGTCAACCGTCTCGGCGAGACATCGTCTGCAACACTCTCGAGACAACGCTCAACACTCTCGTCACATC
TCTCAACTCTGCGAGAGACATACTCGAACTGCACACTGCTCAGTCTCAACACAGAGAGTCTGTCGATAGCACTGCATAAAGCTCGTCTTACACTCGAGTCGACA
ATGCTCGATCGCTCACACTGCTCGAGAGTCTGCGTACGTCGACATGCTCATCTAACAATTCGACATTCGAGCATCGCTGCCCACATGCTCGTCAAGTCGA
CATGCACACTGCTGCTCACTCGAAAAA

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**Fig. S1. Nucleotide and deduced amino acid sequences of *A. ipsilon* NLG1.** Nucleotide (upper line) and amino acid (lower line) numbers are given on the left. The *AiNLG1* cDNA of 5047 bp contains a 180-bp 5'-untranslated region, an open reading frame of 4401 bp and a 466-bp 3'-untranslated region with a polyadenylation signal upstream of the poly(A) tail. The *AiNLG1* ORF was translated into a 1467 amino acid sequence.

**Table S1.** List of the primers used in the study.

Primer name	Sequence
NLG1dir	5'-TACGGGTGGGAGTGCAGGAGG-3'
NLG1rev	5'-GCCTAATGCCGACGTGGATGT-3'
NLG15'-RACE1	5'-GCGAATACGGGACGCATTCTCC-3'
NLG15'-RACE2	5'-CCAGTCTGATAGCGCAGAACCC-3'
NLG13'-RACE1	5'-CCATACTGATGAATGACAGCG-3'
NLG13'-RACE2	5'-GCGCCCAGGGTTCGTCTACCTG-3'
qNLG1dir	5'-CCTCCTTCCTCGCCGAGGCC-3'
qNLG1rev	5'-GGAACAGGTCGCGAAGGCTTC-3'
RpL8dir	5'-CCAGTTTGTCTACTGCGGCAA-3'
RpL8rev	5'-GCTTAACCCTAGTACGCTTGCA-3'