

Supplementary materials 1

DNA sequence for pAIDA1

TGGCACGCGGCGCGCCCCCTGGTGCGCAAACCTATTAACCTGGCGAACTACTTACTCTAGCTTCCCGG
CAACAATTAATAGACTGGATGGAGGCGGATAAAGTTGCAGGACCACTTCTGCGCTCGGCCCTTCCG
GCTGGCTGGTTTATTGCTGATAAATCTGGAGCCGGTGAGCGTGGGTCTCGCGGTATCATTGCAGCA
CTGGGGCCAGATGGTAAGCCCTCCCGTATCGTAGTTATCTACACGACGGGGAGTCAGGCAACTATG
GATGAACGAAATAGACAGATCGCTGAGATAGGTGCCTCACTGATTAAGCATTGGTAACTGTCAGA
CCAAGTTTACTCATATATACTTTAGATTGATTTAAAACTTCATTTTTTAATTTAAAAGGATCTAGGTG
AAGATCCTTTTTGATAATCTCATGACCAAAAATCCCTTAACGTGAGTTTTCGTTCCACTGAGCGTCAG
ACCCCTTAATAAGATGATCTTCTTGAGATCGTTTTGGTCTGCGCGTAATCTCTTGCTCTGAAAACGA
AAAAACCGCCTTGACAGGGCGGTTTTTCGAAGGTTCTCTGAGCTACCAACTCTTTGAACCGAGGTAA
CTGGCTTGGAGGAGCGCAGTCACCAAACTTGTCCTTTCAGTTTAGCCTTAACCGGCGCATGACTT
CAAGACTAACTCCTCTAAATCAATTACCAGTGGCTGCTGCCAGTGGTGCTTTTGCATGTCTTTCCGG
GTTGGA CTCAAGACGATAGTTACCGGATAAGGCGCAGCGGTCGGACTGAACGGGGGGTTCGTGCA
TACAGTCCAGCTTGGAGCGAACTGCCTACCCGGAACCTGAGTGTCAGGCGTGGAATGAGACAAACG
CGGCCATAACAGCGGAATGACACCGGTAAACCGAAAGGCAGGAACAGGAGAGCGCACGAGGGAG
CCGCCAGGGGGAAACGCCTGGTATCTTTATAGTCCTGTCGGGTTTCGCCACCACTGATTTGAGCGT
CAGATTTCTGTGATGCTTGTGAGGGGGGCGGAGCCTATGGAAAAACGGCTTTGCCGCGGCCCTCTCA
CTTCCCTGTTAAGTATCTTCCTGGCATCTTCCAGGAAATCTCCGCCCCGTTTCGTAAGCCATTTCGCG
TCGCCGAGTCGAACGACCGAGCGTAGCGAGTCAGTGAGCGAGGAAGCGGAATATATCCTGTATC
ACATATTCTGCTGACGCACCGGTGCAGCCTTTTTTCTCCTGCCACATGAAGCACTTCACTGACACCC
TCATCAGTGCCAACATAGTAAGCCAGTATACACTCCGCTAGCGCTGAGGTCTGCCTCGTGAAGAAG
GTGTTGCTGACTCATACCAGGCCTGAATCGCCCCATCATCCAGCCAGAAAGTGAGGGAGCCACGGT
TGATGAGAGCTTTGTTGTAGGTGGACCAGTTGGTGATTTTGAACCTTTTGCTTTGCCACGGAACGGTC
TGCGTTGTGCGGAAGATGCGTGATCTGATCCTTCAACTCAGCAAAAAGTTCGATTTATTCAACAAAG
CCACGTTGTGTCTCAAAATCTCTGATGTTACATTGCACAAGATAAAAAATATATCATCATGAACAAT
AAAACCTGTCTGCTTACATAAACAGTAATACAAGGGGTGTTATGAGCCATATTCAACGGGAAACGTC
TTGCTCGAGTATCCGCTCATGAGATTATCAAAAAGGATCTTCACCTAGATCCTTTTGTAAGAGGTTT
CAACTTTCACCATAATGAAATAAGATCACTACCGGGCGTATTTTTTGAGTTATCGAGATTTTCAGGA
GCTAAGGAAGCTAAAATGGAGAAAAAAATCACTGGATATACCACCGTTGATATATCCCAATGGCA

TCGTAAAGAACATTTTGAGGCATTTTCAGTCAGTTGCTCAATGTACCTATAACCAGACCGTTCAGCT
GGATATTACGGCCTTTTTAAAGACCGTAAAGAAAAATAAGCACAAAGTTTTATCCGGCCTTTATTCA
CATTCTTGCCCGCCTGATGAATGCTCATCCGGAGTTTCGTATGGCAATGAAAGACGGTGAGCTGGT
GATATGGGATAGTGTTACCCCTTGTTACACCGTTTTCCATGAGCAAACCTGAAACGTTTTTCATCGCTC
TGGAGTGAATACCACGACGATTTCCGGCAGTTTCTACACATATATTCGCAAGATGTGGCGTGTTAC
GGTGAAAACCTGGCCTATTTCCCTAAAGGGTTTATTGAGAATATGTTTTTCGTCTCAGCCAATCCCT
GGGTGAGTTTCACCAGTTTTGATTTAAACGTGGCCAATATGGACAACCTTCTTCGCCCCCGTTTTAC
CATGGGCAAATATTATACGCAAGGCGACAAGGTGCTGATGCCGCTGGCGATTTCAGGTTTCATCATGC
CGTTTGTGATGGCTTCCATGTCGGCAGAATGCTTAATGAATTACAACAGTACTGCGATGAGTGGCA
GGGCGGGGCGTAATTTTTTTAAGGCGACACCATCGAATGGCGCAAAACCTTTCGCGGTATGGCATG
ATAGCGCCCGGAAGAGAGTCAATTCAGGGTGGTGAATGTGAAACCAGTAACGTTATACGATGTCG
CAGAGTATGCCGGTGTCTCTTATCAGACCGTTTCCCGCGTGGTGAACCAGGCCAGCCACGTTTCTG
CGAAAACGCGGGGAAAAAGTGGAAGCGGCGATGGCGGAGCTGAATTACATTCCCAACCGCGTGGCA
CAACAACTGGCGGGCAAACAGTCGTTGCTGATTGGCGTTGCCACCTCCAGTCTGGCCCTGCACGCG
CCGTCGCAAATTGTCGCGGCGATTAAATCTCGCGCCGATCAACTGGGTGCCAGCGTGGTGGTGTGCG
ATGGTAGAACGAAGCGGCGTCGAAGCCTGTAAAGCGGCGGTGCACAATCTTCTCGCGCAACGCGT
CAGTGGGCTGATCATTAACTATCCGCTGGATGACCAGGATGCCATTGCTGTGGAAGCTGCCTGCAC
TAATGTTCCGGCGTTATTTCTTGATGTCTCTGACCAGACACCCATCAACAGTATTATTTTCTCCCAT
GAAGACGGTACGCGACTGGGCGTGGAGCATCTGGTCGCATTGGGTACCAGCAAATCGCGCTGTT
AGCGGGCCCATTAAGTTCTGTCTCGGCGCGTCTGCGTCTGGCTGGCTGGCATAAATATCTCACTCGC
AATCAAATTCAGCCGATAGCGGAACGGGAAGGCGACTGGAGTGCCATGTCCGGTTTTTCAACAAAC
CATGCAAATGCTGAATGAGGGCATCGTTCCCACTGCGATGCTGGTTGCCAACGATCAGATGGCGCT
GGGCGCAATGCGCGCCATTACCGAGTCCGGGCTGCGCGTTGGTGCGGATATCTCGGTAGTGGGATA
CGACGATACCGAAGACAGCTCATGTTATATCCCGCCGTTAACCACCATCAAACAGGATTTTCGCCT
GCTGGGGCAAACCAGCGTGGACCGCTTGCTGCAACTCTCTCAGGGCCAGGCGGTGAAGGGCAATC
AGCTGTTGCCCGTCTCACTGGTGAAAAGAAAAACCACCCTGGCGCCCAATACGCAAACCGCCTCTC
CCCGCGCGTTGGCCGATTCATTAATGCAGCTGGCACGACAGGTTTCCCGACTGGAAAGCGGGCAGT
GAGTGGATAACCGTATTACCGCCTTTGAGTGAGCTGATACCGGGAATTCTCACTCATTAGGCACCC
CAGGCTTTACACTTTATGCTTCCGGCTCGTATAATGTGTGGAATTGTGAGCGGATAACAATTTACA
CAGGAAAGCTTCATATGAATAAGGCCTACAGTATCATTTGGAGCCACTCCAGACAGGCCTGGATTG

TGGCCTCAGAGTTAGCCAGAGGACATGGTTTTGTCCTTGCAAAAAATACACTGCTGGTATTGGCGG
TTGTTTCCACAATCGGAAATGCATTTGCAGTCGACCACCATCACCATCACCATCTGGAAGCGCTGTT
CCAGGGTCCGGGTACCCAGAAACAGCGTACCGAGCTCGAAAACCTGTACTTCCAGGGTGAACAGA
AACTGATTAGCGAAGAAGATCTGTCTAGAGTGAATAACAATGGAAGCATTGTCATTAATAACAGC
ATTATAAACGGGAATATTACGAATGATGCTGACTTAAGTTTTGGTACAGCAAAGCTGCTCTCTGCT
ACAGTGAATGGTAGTCTTGTTAATAACAAAAATATCATTCTTAATCCTACAAAAGAAAGTGCGGCC
GCTATAGGTAATACTCTTACCGTGTCAAATTATACTGGGACACCGGGAAGTGTTATTTCTCTTGGTG
GTGTGCTTGAAGGAGATAATTCACCTACGGACCGTCTGGTGGTGAAAGGTAATACCTCTGGTCAAA
GTGACATCGTTTATGTCAATGAAGATGGCAGTGGTGGTCAGACGAGAGATGGTATTAATATTATTT
CTGTAGAGGGAAATTCTGATGCAGAATTCTCTCTGAAGAACCGCGTAGTTGCCGGAGCTTATGATT
ACACACTGCAGAAAGGAAACGAGAGTGGGACAGATAATAAGGGATGGTATTTAACCAGTCATCTT
CCCACATCTGATACCCGGCAATACAGACCGGAGAACGGAAGTTATGCTACCAATATGGCACTGGCT
AACTCACTGTTCCCTCATGGATTTGAATGAGCGTAAGCAATTCAGGGCCATGAGTGATAATACACAG
CCTGAGTCTGCATCCGTGTGGATGAAGATCACTGGAGGAATAAGCTCTGGTAAGCTGAATGACGG
GCAAAATAAAACAACAACCAATCAGTTTATCAATCAGCTCGGGGGGGATATTTATAAATTCCATGC
TGAACAACCTGGGTGATTTTACCTTAGGGATTATGGGAGGATACGCGAATGCAAAAGGTAAACGA
TAAATTACACGAGCAACAAAGCTGCCAGAAACACACTGGATGGTTATTCTGTCGGGGTATACGGTA
CGTGGTATCAGAATGGGGAAAATGCAACAGGGCTCTTTGCTGAAACTTGGATGCAATATAACTGGT
TTAATGCATCAGTGAAAGGTGACGGACTGGAAGAAGAAAAATATAATCTGAATGGTTTAACCGCTT
CTGCAGGTGGGGGATATAACCTGAATGTGCACACATGGACATCACCTGAAGGAATAACAGGTGAA
TTCTGGTTACAGCCTCATTTGCAGGCTGTCTGGATGGGGGTTACACCGGATACACATCAGGAGGAT
AACGGAACGGTGGTGCAGGGAGCAGGGAAAAATAATATTCAGACAAAAGCAGGTATTCGTGCATC
CTGGAAGGTGAAAAGCACCTGGATAAGGATACCGGGCGGAGGTCCGTCCGTATATAGAGGCAA
ACTGGATCCATAACACTCATGAATTTGGTGTTAAAATGAGTGATGACAGCCAGTTGTTGTCAGGTA
GCCGAAATCAGGGAGAGATAAAGACAGGTATTGAAGGGGTGATTACTCAAACTTGTCAGTGAAT
GGCGGAGTCGCATATCAGGCAGGAGGTCACGGGAGCAATGCCATCTCCGGAGCACTGGGGATAAA
ATACAGCTTCTGATAATGATCC