

EF1alpha

Amplicon:

ATGAGGTGGGCCATCTACCTGAAGAAGGTGGGCTACAAACCTATCAAGATTCCCTTCGTGCCCATCTCGGGTTGGGC
CGGCGACAACATGATCGACAGGTCCCCCAACATGCCTTG GTA

Fucus transcriptome 'gene' CDS (TRINITY_DN35856_c3_g5_i2):

GAGTTCGAGGCCGGTATCTCGAAGAACGGCCAGACCCGCGAGCACGCGCTTCTGGCTTACACGCTTGGCGTGAAGCA
GATGATCGTGTGCGTTAACAAGATGGACGACTCTTCCGTGATGTACGGCGAGGCCCGCTACAAGGAGATCAAGGATG
AGGTGGCCATCTACCTGAAGAAGGTGGGCTACAAACCCATCAAGATTCCCTTCGTGCCCATCTCGGGCTGGGCCGGC
GACAACATGATCGACAGGTCCCCCAACATGCCTTG GTAACAAGGGCCCTTTCTTGCTTGAGGCCCTCGACAACCTGTAA
GGAGCCTACGCGCCCCACGGACAAGCCCCCTTCGTCTCCCACTGCAAGACGTGTACAAGATCGGTGGTATCGGCACGG
TTCCCGTCGGCCGCGTGGAGACCGGCGTCTTAAGCCCCGGTATGGTGGTGACCTTCGCGCCGGTGAACCTTGAAACC
GAAGTGAAGTCTGTGGAGATGCACCACGAGTCTTTGCCGGAGGCTTTGCCCGGAGACAACGTGGGCTTCAACGTGAA
GAACGTGTGCGTGAAAGACATCCGCCGAGGGTACGTGGCTGGTGCCACTAAGAAGGACCCTCCTCTGGGTGCCTCCA
TGTTTCAGCGCACAGGTTATCGTTCATGAACCACCCCGGCCAGATCTCCAACGGCTACGCACCAAGTGTGGACTGCCAC
ACTGCGCACGTGGCGTGCAAGTTCAAGGAGATCACCCAGAAGATGGACCGTCGATCTGGTAAGATCATGGAGGAAGG
CCCCAAGTTTCGTGAAGACGGGCGACGCGTGCATGGTGAACATGGAGCCGTCCAAGCCCATGTGCGTGGAGTCCTTCG
CCGAGTACCCGCTCTGGGACGCTTCGCCGTGCGGACATGCGTCAGACTGTGGCCGTGGGCGTGATCAAGTCCGTC
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UBCE2

Amplicon:

AAGCTCAACATGGGCTGTGTGCGACCAGAGAAGCGGCGAGGTACAACGACACAGGCTTCAGGTGCTGGCCCAGTGGA
CAGGAATTACGGCATTGAGCAGGTACTGGTGGC

Fucus transcriptome 'gene' CDS (TRINITY_DN33985_c0_g2_i1):

ATGACAACGCGACCGGAGAGGTTATTATGGTCCCGCGCAACTTCAAGCTGTTGGAGGAGCTCGAGAAGGGCGAAAA
GGGCGTGGGGGATCACAGCGTGAGCTTTGGCCTGGTGGACGGGGAGGATATCTTCATGACCGACTGGAACGGAACCG
TCCTTGGAACGAACGGGACTCCGCACGAGGGCCGGCTCTACACGTTGAGGATTCAGTGCAGGAGAGAACTATCCCGAT
CAGTGCCCGCACGTGCGCTTCGTGAGCAAGCTCAACATGGGCTGTGTGCGACCAGAGAAGCGGCGAGGTACAACGACA
CAGGCTTCAGGTGCTGGCCCAGTGGAACAGGAATTACGGCATTGAGCAGGTACTGGTGGCCCTAAGGAACGAGATGG
CTGGTCCCTCGAACCGCCGACTCCCCAGCCGCCCGAGGGCACTGAGTTCTAG

ACT

Amplicon:

GACCTTTACGGCAACATCGTACTCTCCGGCGGTACCACCATGTTCCCCGGCATCGGCGAGCGTATGACCAAGGAGCT
TACGGCACTGGCACCTTCGACAATGAAGATCAAGGTTGTGGCACCA

Fucus transcriptome 'gene' CDS (TRINITY_DN37559_c3_g2_i3):

AAGGCCAACAAAGGAGCGCATGACTCAGATCATGTTTCGAGACCTTCAACGTGCCCCGCTATGTACGTCAACATCCAGGC
CGTTCTCTCCCTCTACGCCTCCGGTCTGTAACACCGGGTGTGTGCTCGATTTCGGGTGACGGAGTGTCCACACCCGTGC
CCATCTACGAGGGGTACGCTCTACCCACGCAATCAACCGCCTCGACCTCGCCGGGCGTGACCTGACCGATAACCTC
ATGAAGGTTTTTGACCGAGCGTGTTACTCCTTCACGACCACCGCGGAGCGCGAGATCGTTTCGCGACATCAAGGAGAA
GCTCACCTACGTGGCGCTGGACTTCGACCAGGAGATGAAGACGGCCGCGGAGTCTGCTCTCAGCTTGAAAAGTCTGTACG
AGCTCCCCGACGGAAACGTTCATCGTGATCGGCAACGAGCGCTTCCGTTGCCCTGAGGTTCTCTTCCAGCCGTCGTTT
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CGGCACTGGCACCTTCGACAATGAAGATCAAGGTTGTGGCACCACCCGAGCGGAAATACTCGGTGTGGATCGGTGGT
TCTATCCTCGCGTCGCTGTCCACTTTCAGCAAATGTGGATTTCAAGGCAGAGTACGATGAGTCTGGCCCGTCCAT
CGTTACCGCAAGTGCTTCTAA

14-3-3

Amplicon:

CAAGATCGAGACAGAGTTGACGGACATCTGTGACGACATCCTGAAGATCATCGAAGCCGAGCTTATCCCGAACTCAA
CTTCCGAAGAGGGAAAAGTGTTTTACTACAAGATGAAGGGCGA CTACCACCGGTATCTTGCG

Fucus transcriptome 'gene' CDS (TRINITY_DN36694_c1_g1_i1):

ATGACCTCTCGCGATGATCTCGTTTACATGGCCAAGCTCGCTGAGCAGGCCGAGCGCTTTGATGAAATGGTGGACCA
CATGAAGGCTGTTGCTCAGCAGCCGAAGGAGCTTTCCGTTGAGGAGCGTAACCTCCTCTCCGTAGCGTACAAGAACG
TCATCGGCTCCCGTCGCGCCTCCTGGAGGGTGATCAGCTCCATTGAGGGCAAGGACACCGTGAGCGATCAGTTACCT

CTGATTTCGTGACTACAAGTCCAAGATCGAGACAGAGTTGACGGACATCTGCGACGACATCCTGAAGATCATCGAGAA
CGAGCTTATCCCCGAAGTCAACCTCCGAAGAGGGGAAAGTGTCTTTACTACAAGATGAAGGGCGACTACCACCGGTATC
TTGCGGAGTTCCAGTCCGCCGACGAACGGAAAACCT
AGCGCCTCCGATGCCCTCGACGCATACCAGTCAGCCTCTGAGCTTGCAAACAGGACCTTCCCCCGACCCACCCAAT
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CGAAGGCGGCATTTCGACGACGCAATCGCAGAGCTGGACACGCTTTCTGAGGAATCTTACAAAGACTCGACACTTATC
ATGCAGCTCCTCCGGGACAACCTCACTCTGTGGACATCAGACCAGGGAGAGGCGGAGGAAGCACCTGGTAACGCCGA
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40S

Amplicon:

ACGGCTGTCTGAACTTCACCGACGAAAACGACGAAGTGCTTATCTCCGGTTTCGGTCGCCGCGGTACGCCGTGGGT
GATATCCCTGGTGTCCGTTTCAAGGTGGTGAAGGT

Fucus transcriptome 'gene' CDS (TRINITY_DN31154_c0_g1_i1):

ATGGGTAAGGGAAAGCCAGCAGGTATCCGCGCCGGGCGCAAGCTGCGGATTACCGCCGCAACCAACGGTGGGCAAG
CAAGGACTACAACAAGTCTCACTCGGTTACGGCGATGAAGGCGAACCCTCTCGGTGGATCTTCCATGGCCAAGGGCA
TCGTCTTGGAGAAAATCGGTATCGAGGCCAAACAGCCCAACTCGGCCATCCGTAAGTGCGTAAGAGTACAGCTGATC
AAGAATGGGAAGAAGCTGGCGGCTTTTCGTTCCGCGTGACGGCTGTCTGAACTTCACCGACGAAAACGATGAAGTGCT
GATCTCCGGTTTCGGTCGCCGCGGTACGCCGTGGGTGATATCCCCGGTGTCCGTTTCAAGGTGGTGAAGGTGCGCG
GTGTGTCGCTCCTTGCGCTCTACAAGGACAAGAAGGAAAAGCCCCGCTCCTAA

EF1beta

Amplicon:

TTCGGAGTGAAGAAGCTCGTCTTGTCTGTGGTTCGAAGACGCCAAGGTTGGCGTCGATGACATCACCGACTGCAT
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Fucus transcriptome 'gene' CDS (TRINITY_DN38203_c1_g1_i5):

ATGAATGTGGATCGTGCTCAGTGGGAAAGTTTCAGACACGGTGGACGTTGGGAGGGAAAATTGGTATCCGAACACAAT
CCGCTGCGTAACGGAGATCAAATGTCTTCACAGTACCCTGAGCCGCGCTGTCAGATACGCCAAGCTTTACCTGAAAG
ATTCCCCAAGTAACACAACAATGGGGCCTAAGTTTCGACCTCGACACGCCCAAGGGCATCGGTGCGTTCAATGGCTTC
ATCTCATCCCGATCGTACGTAGAAGGCTACACCTTCTCCCAGGCCGACGCGGATATGTTTCGCTACCTGTACGGCCAC
CCCGGACAAGTCGAAGGCGCCCCACGCCTACCGCTGGTTTCATCCACATCGCCGCCCTTAAGGGGGTAATCAGCCCTT
CCTTGGCGCCGAGCAAAGAGTCGACGCCGGCGCCA
GAGCCTGCAACCGCACCAACAGCACCCGATTCCACCCCCGAAGGAAGCACCTGCGGACGACGACGATATGGATGATAT
GTTTCGACGACGATGAGGAGGAGGAGGCACCCAAGCCGGCGGAGAAGAGTTCGCGCGGATAAAATGGCCGAGGCGAAGG
CGGCCAAGGATTCCAAGAAAAAGATCGACAAGTCCCAGATCGTGTTCGAGGTAAAGCCGTGGGAGGCGGGCGCCGAC
CTCAAGAGTCTTTTCGAGAAGATCAAGGAGGAGAAGATTGACGGCCTCGCGTGGGGTGAGGCCTACAAGCTGGTGCC
CGTGGCATTTCGGAGTGAAGAAGCTCGTCTTGTCTCGTGGTTCGAAGACGCCAAGGTTGGCGTCGACGACATCACCG
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GTAGACATGACTACGATGAACCGCCTCTGA

EF2alpha

Amplicon:

TGGACCACGGAAAGTCTACCCTGACGGATTCTCTTGTCTCGAAAGCCGGAATCATCGCCGCGAAGAATGCTGGCGAG
GCCCCGCTTTACCGACACACGCCAGGACGAGCAGGACCGATGTATCACCATC

Fucus transcriptome 'gene' CDS (TRINITY_DN37573_c1_g1_i1):

CGCCCTTATTCACTTCTGTGGCTGTACTAGGAGCACCCCTCATCAACCACACCCACGGACTTGGGCTCGCTTGCTAC
CCCACCTTGTTCGGAGCAGTCAGGCCGAGGCCACAACTACCTTACCATGGTGAACCTTACGACAGACCAGCTGCGCG
AGATCATGGACAAGAAGAATAACATCCGTAACATGTCCGTGATTGCGCACGTGGACCACGGAAAGTCTACCCTGACG
GATTCTCTTGTCTCGAAAGCCGGAATCATCGCCGCCAAAAACGCTGGCGAGGCCCGCTTACCGACACCCGCCAGGA
CGAGCAGGACCGATGTATCACCATCAAGTCCACCGGAATCTCAATGTTCTTCGAGTACAATCTGGATGCCGGAGAGA
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CATCAACCTCATCGACTCTCCCGGCCACGTCGATTTCTCGTCCGAGGTGACCGCCGCACTTCGCGTTACCGATGGCG
CCCTCGTGGTTGTGATTGCGTGGAAGGCGTTTTCGTCGAGACGGAAACCGTGCTCCGTCAGGCCATCTCGGAGCGC
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GACCAGTACCTCCTCAAGTCGGGTACGATCACTACCTCCGAGTCGGGCCACACAATCAAGACCATGAAGTTCAGCGT
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TATCCGAGTCCGACCCTATGGTTCTGTGCTACACGGAAGAGTCGGGCGAGCACATCATTGCTGGTTGCGGCGAGCTT
CACCTGGAGATCTGCCTTAAAGACCTCCAGGAGACTTCATGGGGACGGAGGTCAAGATCTCTGACCCCGTTGTGTC
TTACCGCGAGACCGTCTCTGCTGAGTCGAGCCAAACGTGTCTGTCCAAGTCCCCCAACAAGCACAAACCGTCTCTATG
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GTGGTTCTACACGCTGACGCCATCCACCGTGGCATGGGCCAGATCATGCCACCTCTCGCCGCGTGGTGTACGCGTC
CATGCTGACCGCGTCACCCGTGCTGCTCGAGCCGGTGTACCTATGCGAGATTTCTGTCTCAAGACGCGATGGGTG
GCTGCTACGGCGTTCTTACGAGGCGTCGCGGCCACGTGTTCCGCCGAGGAGCAGCGCCCGGGAACCCCAATGATGCAA
TTGAGGGCTTACCTGCCCCTCATGGAATCTTTTCGGCTTCACCGCTGACCTCCGGAAAAACACGGGCGGGAAGGCATT
CCCGCAAAATGTGTTTCGACCACTGGCAGGAGATGAGCGGAAACCCGCAAGAAGCGGGTTCTAAAGCCTCAGACGTGG
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ARP2/3

Amplicon:

GGAAGCCTCTGGCTATTGGTCGTTTCTCCGGCAACTGGATGAGAAATCCCGCGGGCCGGCAA
AGCAAGCGGGANCCNTGNNCNCCATGGCTTCCGCCAGGGCGATGTTCCAAGCCAAGACNCAC

Fucus transcriptome 'gene' CDS (TRINITY_DN37000_c0_g2_i1):

ATGCCCCCGCAGAAGTACCAGGTGTTTTCGCCCTCGACAGGAATATCTTGCCACGCATGGAACGCCGACAAGTCCAT
GCTCGCGCTCTGCGCCAACGATAACCGTCTGCAGATCTACGAGGGATGCAACAGCCCGACCTTCTCGTCTTGGCGCC
TGGCGCACGTGCTGGAGGAGCACGACCTTTTGATCACGGGCATCTCGTGGTCACCTGTACGAACAAGATAGTCACG
TGCTCGCACGACCGAAACGCCTTCGTGTGGTCATACGACGCTGCCCAGGGCAAGTGAACCCAATTCTCTGCGCGCT
CAAGCTTAACCGGGCTGCCCTGGACGTGCAGTGGAGCCCGAGCAGGAACAAAATTTCGCCGTTGCGAGCGGCGCCAAGA
CGGTTGCCGTAAGCCGGCTCGACACCTCGCAGAGTACCGAGTGGTACGTGAGCAGGCTCATGAAGGGCCACAAGTCT
ACGGTCCAACAAGTGGCATGGCATCCCAACAATCTCGTCTCGCCACGGCGTGCACGGAATTCAAGTGTGCTGTGGT
TTCGGCTGTGGTGGCAGAGGTGCATACCAATCCCAACCCAGCACCTTTTCGGAACGGTCAAACCATTCGCGCAGGCGT
ACCACGTGTTCCCTGCGCGGGTTGGGTGACGGCGGTAGCTTGGTCTCCCTCAGGGTCAAACCTGGCCTATGCAGGC
CAGGATTGCAGATTCACTTCATGCGCTTCGACCAGGGGAGCGCGGTGGTAGAGCAGAGGGTGCAGTACCCGCTCCT
GCCCCGTGGGGTGCTTGACCTTCTTGAGCGAGAGGGCGGTGTTGGTGGAGGGCACGACATGAACCTTTGGTGTTCG
CGTCGGAAGCCTCTGGCTATTGGTCGTTTCTCCGGCGACTGGATGAGAAATCCCGCGGGCCGGCAAAGCAAGCGGGA
GCCGTGAGCTCCATGGCTTCCGCGAGGGCGATGTTCCAAGCCAAGACCACCCGGGGTCAGGCAGCCTCCGGCGGAGC
GGGTGAGGACCTGTGGACGCAGCATGCCAACTCCATCGTGGGGATGGAGAGCATGGGACACGCGGAAGACCCAACGT
GCTCGAAGTTTTCCACCTGCGGTTTGGACGGAAGGATAGTGGTATGGAATGTTCCCACTCTCGACATCGACATGCAA
GCCTTGGGGCTATGA

GAPDH

Amplicon:

TCTTGGGTTACACCGAGGACTCTGTGGTTTTCTCGGACTTCATTGGTGACCCCTCGCTCGTCCATCCTGGACGCCAAC
GCCGGCATCGCCCTCAGTGACACCTTCGTCAAGCTCGTGTGCTGGTAC

Fucus transcriptome 'gene' CDS (TRINITY_DN36486_c2_g3_i1):

GACTATAATAGTAGAAGCAACATCGTGAAGAGCAAGGCGCAGAGATCTACACGCCGAAACAAGATGGTCAACGTTGC
TATCAACGGCTTTGGACGCATCGGGAGATTGGTTCTTCGTGCCGCCAAGCACACAAGCACATCAATGTGCTGGCCG
TCAACGACCCCTTTGTACCCCGGAGTACATGAATTACATGTTCAAGTACGACACCGTCCATGGCGTCTACGACGGC

ACCGTAGAGAACGACGACTCGAGCATCATCGTCGATGGGAAGAAGATCAAGGTGTTTCGGCGAAATGGACGCCGCAAA
CGTCAAGTTTCGGGGACGTAGGTGCCGACTACGTGGTGGAGAGCACTGGTCTCTTTACCACGACAGAATCAGCGGCCG
TGCATCTCAAGGGGGGAGCAAAAAAGGTGGTGATCAGCGCTCCCTCCCAAGACGCGCCTATGTTTCGTGATGGGCGTC
AACCAGGACAAGTATACCCCCGACATGCACGTGGTCTCCAATGCCTCGTGCACCACCAACTGCCTCGCCCCCATCGC
CAAGGTTATTAACGACTCGTTTCGGCCTGAAGGAGGGGCTCATGACCACCGTGCACGCTGTCACCGCAACGCAAAAGA
CCGTAGACGGCCCATCCAAGAAAGACTGGAGAGGCGGGAGGGCGGCCGGATTTAACATCATCCCGTCTCCACGGGA
GCCGCCAAGGCGGTGGGCAAGGTTATCCCCGAGCTGAACGGTAAGCTGACGGGCATGTCGTTCCGGGTCCCAACCGC
CAACGTGTCCGTGGTGGACCTCACCTGCCGGCTAGAGAAGCCTGCGAGCTACGAGGATATCAAGGCCGCGATGAAGG
CTGCCTCGGAGGGACCCATGCATGGCATCTTGGGTTACACCGAGGACTCTGTGGTTTCCTCGGACTTCATTGGTGAC
TCTCGCTCGTCCATCCTGGACGCCAACGCCGGCATCGCCCTCAGCGACACCTTCGTCAAGCTCGTGTGCTGGTACGA
CAACGAATGGGGCTACTCCTGTCGCGTGCTGGACCTCATCACCATATGGACAAGTCGTCTTGA