

Additional File 5 – Primer sequences

A. Primers for cDNA library construction (trimmed from raw sequences prior to sequence assembly)

modified oligo-dT reverse transcription primer:

AAGCAGTGGTATCAACGCAGAGTACTTTTGTTTTTTTTTCTTT
TTTTTTTVN

MINT 5' PlugOligo adaptor:

AAGCAGTGGTATCAACGCAGAGTACGGGGG-P

MINT M1 PCR primer:

AAGCAGTGGTATCAACGCAGAGT

B. 454 sequencing adaptors (trimmed from raw sequences prior to sequence assembly)

454 A1 CCATCTCATCCCTGCGTGTCTCCGACTCAG

454 B1 CCTATCCCCTGTGTGCCTTGGCAGTCTCAG

C. Primers for PCR assay of metabolic activity in dried Spirulina food (Additional File 2)

rbcL-A+ AACCTCCATCGTGGGTAACG

rbcL-C- CAGCGGTGAAGAAGTCGTGC

cpc-D+ AGTCGCCTAGGAATCAGAGC

cpc-E- GTTGGGTAGCAAACCACGG

atub-A+ ACCCACACCACTCTGGAGCG

atub-B- TGATTTTCAGCAACGGTGAGC

D. Primers for qPCR assays of normalization efficiency (Figure 2)

PRiIe- β actin-Q1+ ACGCCAACACCGTCATGTCT

PRiIe- β actin-Q2- GATCCAGACGGAGTATTTGC

PRiIe- α tub-Q1+ CTTACACCAACCTGAACCGT

PRiIe- α tub-Q2- CTGGAACTCGGTCAGATCGA

PRiIe-wnt1Q1+ TCGGTGACGTCATCAAAGAC

PRiIe-wnt1Q2- AGGCTGACGATGGTGAGAGT

PRiIe-otx2Q1+ CGGTATCCGGACATATTCAC

PRiIe-otx2Q2- GGAAGTACTGCTCAACTG

PRiIe-hoxZ(ST42)-Q1+ TCGAAATCGCTGCCTCGCTA

PRiIe-hoxZ(ST42)-Q2- GGCACCCGATGAAGATCCAT

E. Primers for validation of contigs and isotigs (Figure 5)

Isogroup08478 (*piwi-like*):

Piwi_contigA+ ATAATCCAGGCAAATCAACGATC
Piwi_contigA- GATGGTTCCTGCACGTGGATTTG
Piwi_contigB+ ATTGACACAGAGGCAACGCGG
Piwi_contigB- GATGGATCTCTATGAAGAGACTG
Piwi_contigC+ TCTGCGCCTAGCCGACAAGCT
Piwi_contigC- CTCCAAAACAATCATCAATTCATCG

Isogroup03233 (*frizzled*):

Fz_contigA+ CCCGTAGTCGACGCGTCTGC
Fz_contigA- TTTCGGAACACAACCCGCACA
Fz_contigA2+ TGTCCAGCGTTTTCCAAGTAC
Fz_contigA2- GTCAAACGCAGCTCGTCGAC
Fz_contigB+ CTGTTTCAAGTTTTATCGCTGTC
Fz_contigB- ACGACGACGACGACCGCATT
Fz_contigB2+ TAGGCTACGCACGCACGGTC
Fz_contigB2- TTCGCTGCTATCTTTGTGTGAC
Fz_contigC+ GATCAGCTGGAATCCGTGTACT
Fz_contigC- GCAGGTGATGGTGCACATC
Fz_contigC2+ CGCTGCTTCTTAATCCACTG
Fz_contigC2- CGAATGCTGCTGCTGTTGCTG
Fz_contigD+ CGTTCCTCGTGCTGTATTTCTTC
Fz_contigD- GCAGCCGCGGTGTGAATATCAC
Fz_contigD2+ TTCGGCATGGCTGGATCGCT
Fz_contigD2- GTGGCTGGCGTAGCTAAACG
Fz_contigE+ CTGCAGCTGGAAAATGTGAACG
Fz_contigE- CGACTTGTTCCGGTACACATTG
Fz_contigE2+ GATCACGATACCTCTATGTAAGG
Fz_contigE2- TGGTGCGTACAAAGAACAGAGGA
Fz_contigF+ CTACCGGAAGTGCGACACGTC
Fz_contigF- CCGTAACAACCTCCATGATCAATC

F. Primers for *in situ* hybridization probe synthesis (Figure 7)

Pl-fzA (isogroup23343):

Pl-fzA-A+	CGTTCCTCGTGCTGTATTTCTTC
Pl-fzA-B-	TAAGATTCCGAAGTGATTCCGG

Pl-β-cat (isogroup01340):

Pl-β-cat-Q+	GTAGATTCAGGAATTCATTC
Pl-β-cat-T-	GTAAGGCACATATCGTTGGC