

Supplementary Table 1a. Primer sequences for PCR amplification of *Citrullus* mitochondrial cDNA sequences.

Name	Forward	Name	Reverse
atp1-F	CTCCCTTGACTCGAGACCATT	atp1-R1	CTTGCATCATCCAGTTTGATTTG
atp4-F	TGGGCGAGCGCATCCGATTC	atp4-R	TTCGCTCTTCTGTTAGCATG
atp6-F	CGGAACKACAGGGATGAAAT	atp6-R	CCTCGCTTTTGTTC AATTAT
atp8-F	GAGTCTCTTTCTGTCTGG	atp8-R	GAACGACCAAGTCATAATGAG
atp9a-wat-F	GAAGAGGATTCCCGGACTGG	atp9a-wat-R	GATAGTTGGTTGAATGAAACG
atp9b-wat-F	AGCGTGAGAATATTATCAACC	atp9b-wat-R	GTCTTGCTTTATGAGACTG
ccmB-F	GAAAGAACGAAGAAGTAAGG	ccmB-3R	AGCCATTCAATCTTG TAAACT
ccmC-F	TTCTTGTTCCACTAGCTAGGAC	ccmC-R1	AGTGA ACTARGTTTTGGTATTCC
ccmFc-F	AACTCGAACATCTCGAGC	ccmFc-2	TCGCACGACAGAAGAACACC
ccmFc-eF	AGAAATCGGGCTTGAAGCTCT	ccmFc-R1	AATTATGAACTCCACGGA ACT
ccmFn-F1	GATGGGAATAASAAAGCAGAAAT	ccb382-2	TGTTGATTCTGAACTTYGTTY
ccb382-4	TCGGA ACTCGCTGATAGGAAAG	ccmFn-R1	CTGGCTCTGAATAAC CWGC
cob-F	AGAGTTGTCACGATAGGAAAG	cob-R	ACTCTACAATGATTTGTGTCAGAA
cox1-F	CTCTGATAAGGAAGGAAACG	cox1-eR	GCATAAACCATGCCTAGATAC
cox1-5	CTCATTCTGCCTGGATYCGGT	cox1-R1	GTTAGGTTCTTAGTAGCAGTC
cox2-3F	GCAGTCAAAGAAKAAASCAAAS	cox2-3Ra	CTTTCATTTCYRCTTAAGCTT
cox3-F	GTCAGATAGAAAGAAAATGAG	cox3-R	CCCGGTTCTCTTTGTCTTC
matR-1	GGGTYGAAGTTTAGACCGCTC	matR-8	CTCATCCCGTTCGTCAGYWST
matR-6	ACGGGTAAAGCACCGTATCCA	matR-4	CTTCCCAAGCTCTATGCTGTT
mttB-wat-F	ATGAATCGAATCCTATCAAATC	mttB-wat-R	ATAGT GACTTTGCCAGGTTT
nad1-F	GACTCAACCACAAATCTGTTG	nad1-16	GGRAGCCATBGAAAGGTGACT
nad2-F	TGAAAGCAGAATTCGTTCCGATCC	nad2-e4R	CAATTGAACTATGAGCTAGAGGTC
nad2-e3F	TTTGACCGGATACGAAATCACTG	nad2-R1	GAACCTTGCAATGATCGAACTT
nad3-F	GCGATCAAGGAGCGAAAGAAC	nad3-R	CTCTTTTTGCCCTCTCACTAGT
nad4-F	GTTTACTGTTGTCAACTAATCTC	nad4-e3R	ATAAAGCTGCTAGTACCAGGT
nad4-3	AGACAGATCGATCTWAAGAA	nad4-10	CCATGTTGCACTAAGTTACTT
nad4L-F	TTCTCTGACATTCTACGTTCC	nad4L-R	ATTTGGGTAATTCTCTAGGAG

Name	Forward	Name	Reverse
nad5-F	TCTGATTTTTTGTGTCTGATCAC	nad5-e2R	ACCAAGTATGCGATCCTATCT
nad5-e2F	AGCTATGCCTGTCAATCGAG	nad5-18	TCTAYCCAAGAAGATAGRRAG
nad6-F	GTTCCATTTTCAGGGAAGGACG	nad6-R	CTCACGACTTGGATTCGAACC
nad7-F	TCTTTCTTMTTCTKCCTTTC	nad7-e4R	CATTTGATTAGGACATTGCAC
nad7-e3F	GATGCATGCCAGTTTCATACG	nad7-R	TCGAGCAACTAGTAGTCC
nad9-F	CKACAAKMAAGCTTTCTTTATC	nad9-R	TGGACCTATTCTTCTTCTTAATT
rpl2-F	GAATCGAATGATTAYGATCTCGAC	rpl2-R	CGCTGTGTGAATAAGGTCTT
rpl5-F	GCTCATTCTATAGATACTGTG	rpl5-R	GCAATCTACGTTTGTGATCTC
rpl16-F	AATAGCTAGAACTGAATGCGG	rpl16-R	GTTTATCCCCACTAACCAA
rps1-F	AGTTTTACGCTTAAGGGAAG	rps1-wat-R	CAGCGGATTTTCGCTCATC
rps3-F	GRAAAAMAARGGGGAGAAAGTC	rps3-eR	AGCACCGAAGAAWGGAAAGAG
rps3-eF	CTCAATCATTTTCGTGGCACC	rps3-R	CCTACTACATCTGCCTTTACG
rps4-F	ATTCCCGTTATACGCGATGTG	rps4-R	TCGAGACGGATAGATATGTCC
rps7-F	CTTCCAATTGCTCGGAAATTC	rps7-R	GGAAGAGCTCTTTATGTGGTC
rps10-F	AGCCAAAAAGAAAGACCACC	rps10-R	CCTTTTCCTCTCACCCCG
rps12-F	GGGAAGGACAAAGGAAAGAG	rps12-R	GAAAAASAAGTGAAAGAGGCATC
rps13-F	AGCCNAGAAGACAGTAAAAGG	rps13-R	TCCGACAAGTACCAAGGGCTT
rps14-F	AAAGATGAGGGGGAAACTCAG	rps14-R	ACTCCGTTAGGTCTTTTCGKTC
rps19a-F	TCGAAGCGAAGAAATTCTGAG	rps19-R	TTTTCGTGCCATATGCGC
rps19b-wat-F	GGGGAAAAGGAGAAATGAG	rps19-R	TTTTCGTGCCATATGCGC
sdh3-wat-F	ATGAGAATGAGAATGAGAATG	sdh3-wat-R	AAAAAGTCTTGAATCCTCCAA

Supplementary Table 1b. Primer sequences for PCR amplification of *Cucurbita* mitochondrial cDNA sequences.

Name	Forward primers	Name	Reverse primers
atp1-F	CTCCCTTGACTCGAGACCATT	atp1-R1	CTTGCATCATCCAGTTTGATTTG
atp4-F	TGGGCGAGCGCATCCGATTC	atp4-R	TTCGCTCTTCTGTTAGCATG
atp6-F	CGGAACKACAGGGATGAAAT	atp6-R	CCTCGCTTTTGTTC AATTAT
atp8-F	GAGTCTCTTTCTGTCTGG	atp8-R	GAACGACCAAGTCATAATGAG
atp9-zuc-F	AGCGTGACGATCATTATTTATTC	atp9-R	GCACTGTGAACTATCTGCTTC
ccmB-F	GAAAGAACGAAGAAGTAAGG	ccmB-3R	AGCCATTCAATCTTG TAACT
ccmC-F	TTCTTGTTCCACTAGCTAGGAC	ccmC-R1	AGTGAACTARGTTTTGGTATTCC
ccmFc-musk-F	AACTCGAACRKM TNGAGC	ccmFc-eR	AGAAGAACACCCAASATAAAG
ccmFc-eF	AGAAATCGGGCTTGAAGCTCT	ccmFc-R1	AATTATGAACTCCACGGA ACT
ccmFn-F1	GATGGGAATAASAAAGCAGAAAT	ccb382-2*	TGTTGATTCTGAACTTYGTTY
ccb382-4*	TCGGAACTCGCTGATAGGAAAG	ccmFn-R1	CTGGCTCTGAATAAC CWGC
cob-F	AGAGTTGTCACGATAGGAAAG	cob-R	ACTCTACAATGATTTGTGTCAGAA
cox1-F	CTCTGATAAGGAAGGAAACG	cox1-eR	GCATAAACCATGCCTAGATAC
cox1-5*	CTCATTCTGCCTGGATYCGGT	cox1-R1	GTTAGGTTCTTAGTAGCAGTC
cox2-3F	GCAGTCAAAGAAKAAASCAAAS	cox2-3Ra	CTTTCATTTCYRCTTAAGCTT
cox3-F	GTCAGATAGAAAGAAAATGAG	cox3-R	CCCGGTTCTCTTTGTCTTC
matR-1*	GGGTYGAAGTTTAGACCGCTC	matR-8*	CTCATCCCGTTCGTCAGYWST
matR-6*	ACGGGTAAAGCACCGTATCCA	matR-4*	CTTCCCAAGCTCTATGCTGTT
mttB-zuc-F	CCTTCCTTCGATGTAATGAAT	mttB-R	ATTGATAGTGACTTTGCCAG
nad1-F	TCGGGTGACCAGGCCAGATC	nad1-16*	GGRAGCCATBGAAAGGTGACT
nad2-F	TGAAAGCAGAATTCGTTCCGATCC	nad2-e4R	CAATTGAACTATGAGCTAGAGGTC
nad2-e3F	TTTGACCGGATACGAAATCACTG	nad2-R1	GAACCTTGTC AATGATCGAACTT
nad3-F	GCGATCAAGGAGCGAAAGAAC	nad3-R	CTCTTTTTGCCCTCTCACTAGT
nad4-F	GTTTACTGTTGTCAACTAATCTC	nad4-e3R	ATAAAGCTGCTAGTACCAGGT
nad4-e2F	ATCTTTCTATGGATTGCTTCTTTC	nad4-10*	CCATGTTGCACTAAGTTACTT
nad4L-F	TTCTCTGACATTCTACGTTCC	nad4L-R	ATTTGGGTAATTCTCTAGGAG
nad5-F	TCTGATTTTTTGTGTCTGATCAC	nad5-e2R	ACCAAGTATGCGATCCTATCT

Name	Forward primers	Name	Reverse primers
nad5-e2F	AGCTATGCCTGTCAATCGAG	nad5-e5R	AAACKACTCACTAWCAAAAATG
nad6-F	GTTCCATTTTCAGGGAAGGACG	nad6-R	CTCACGACTTGGATTCTGAACC
nad7-F	TCTTTCTTMTTCTKCCTTTC	nad7-e4R	CATTTGATTAGGACATTGCAC
nad7-e3F	GATGCATGCCAGTTTCATACG	nad7-R	TCGAGCAACTAGTAGTCC
nad9-F	CKACAAKMAAGCTTTCTTTATC	nad9-musk-R	GACTGGACCTATTCTGATTCTG
rpl2-F	GAATCGAATGATTAYGATCTCGAC	rpl2-R	CGCTGTGTGAATAAGGTCTT
rpl5-F	GCTCATTCTATAGATACTGTG	rpl5-R	GCAATCTACGTTTGTGATCTC
rpl16-F	AATAGCTAGAACTGAATGCGG	rpl16-R	GTTTATCCCCACTAACCAAT
rps1-F	AGTTTTACGCTTAAGGGAAG	rps1-zuc-R	AGCTCAGCAGCTCGACCG
rps3-F	GRAAAAMAARGGGGAGAAAGTC	rps3-eR	AGCACCGAAGAAWGGAAAGAG
rps3-eF	CTCAATCATTTCTGTGGCACC	rps3-R	CCTACTACATCTGCCTTTACG
rps4-F	ATTCCCGTTATACGCGATGTG	rps4-R	TCGAGACGGATAGATATGTCC
rps7-F	CTTCCAATTGCTCGGAAATTC	rps7-R	GGAAGAGCTCTTTATGTGGTC
rps10-F	AGCCAAAAGAAAGACCACC	rps10-R	CCTTTTCTCTCACCCCG
rps12-F	GGGAAGGACAAAGGAAAGAG	rps12-R	GAAAAASAAGTGAAAGAGGCATC
rps13-F	AGCCNAGAAGACAGTAAAAGG	rps13-R	TCCGACAAGTACCAAGGGCTT
rps14-F	AAAGATGAGGGGGAAACTCAG	rps14-R	ACTCCGTTAGGTCTTTTCGKTC
rps19a-F	TCGAAGCGAAGAAATTCTGAG	rps19-R	TTTTCGTGCCATATGCGC
sdh3-zuc-F	AGAGAACATAAATCGAACCT	Sdh3-zuc-R	CATCATCAATTTGTCTTTCTC