

Supplementary materials

Supplementary material 1. a) Names, sequences and positions (in relation to the human mitochondrial DNA) of primers that were used for the determination of the sequence of the 3'-ends of selected human mitochondrial RNAs; b) The expected lengths of the final PCR products for analyzed mRNAs with and without long poly(A) tails

a)

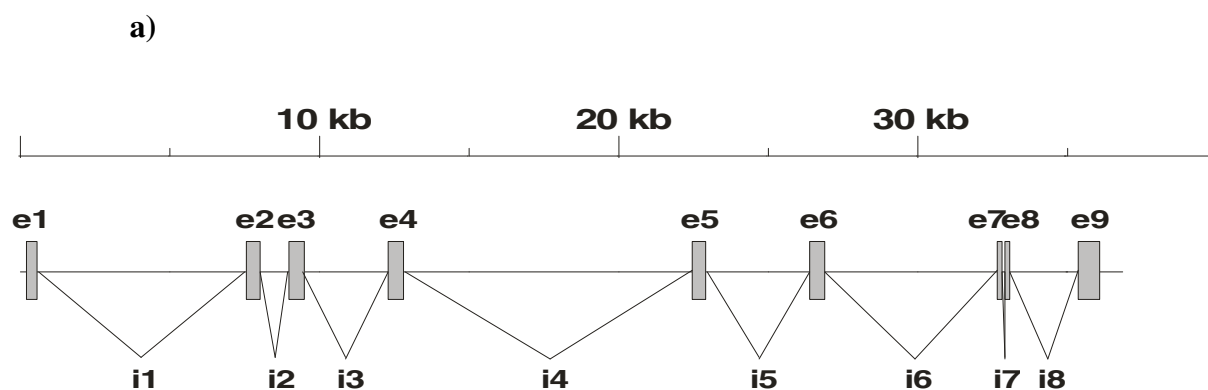
	Examined mitochondrial RNA				
	ND3	CYTB	ATP6/8	COXIII	12S rRNA
primer for reverse transcription	<i>ND3-RT</i>	<i>CYTB-RT</i>	<i>ATP6/8-RT</i>	<i>COXIII-RT</i>	<i>12S-RT</i>
external forward primer	<i>ND3 LP-F</i>	<i>CYTB LP-F</i>	<i>APT6/8 LP-F</i>	<i>COXIII LP-F</i>	<i>12S LP-F</i>
external reverse primer	<i>ND3 LP-R</i>	<i>CYTB LP-R</i>	<i>APT6/8 LP-R</i>	<i>COXIII LP-R</i>	<i>12S LP-R</i>
nested forward primer	<i>ND3 SP-F</i>	<i>CYTB SP-F</i>	<i>APT6/8 SP-F</i>	<i>COXIII SP-F</i>	<i>12S SP-F</i>
nested reverse primer	<i>ND3 SP-R</i>	<i>CYTB SP-R</i>	<i>APT6/8 SP-R</i>	<i>COXIII SP-R</i>	<i>12S SP-R</i>

Name of the primer	Sequence of the primer	Position of the primer in human mtDNA
<i>ND3-RT</i>	5'-GAAGCCGCACTCGTAAGGGG-3'	10181 - 10162
<i>ND3 LP-F</i>	5'-CCTTTTACCCCTACCATGAG-3'	10271 - 10290
<i>ND3 LP-R</i>	5'-ATGTAGCCGTTGAGTTGTGG-3'	10150 - 10131
<i>ND3 SP-F</i>	5'-AACTAACCTGCCACTAATAG-3'	10301 - 10320
<i>ND3 SP-R</i>	5'-TAGTAGTAAGGCTAGGAGGG-3'	10109 - 10090
<i>CYTB-RT</i>	5'-GTCTGGTGAGTAGTGCATGG-3'	14920 - 14901
<i>CYTB LP-F</i>	5'-CAGACCTCCTCGTTCTAACCC-3'	15735 - 15754
<i>CYTB LP-R</i>	5'-ATAGTCCTGTGGTGATTTGG-3'	14894 - 14875
<i>CYTB SP-F</i>	5'-AGGACAACCAGTAAGCTACC-3'	15763 - 15782
<i>CYTB SP-R</i>	5'-TGAGCCGAAGTTTCATCATG-3'	14851 - 14832
<i>ATP6/8-RT</i>	5'-GGGCAATGAATGAAGCGAAC-3'	8560 - 8541
<i>APT6/8 LP-F</i>	5'-CATTCAACCAATAGCCCTGG-3'	8976 - 8995
<i>APT6/8 LP-R</i>	5'-GTTCAATTTGGTTCTCAGGG-3'	8532 - 8513
<i>APT6/8 SP-F</i>	5'-CGCCTAACCGCTAACATTAC-3'	9001 - 9020
<i>APT6/8 SP-R</i>	5'-TTTATGGGCTTTGGTGAGGG-3'	8493 - 8474
<i>COXIII-RT</i>	5'-TTACATCGCGCCATCATTGG-3'	9390 - 9371
<i>COXIII LP-F</i>	5'-GCTTCCACGGACTTCACGTC-3'	9811 - 9830
<i>COXIII LP-R</i>	5'-GTGTTGGTTAGTAGGCCTAG-3'	9358 - 9339
<i>COXIII SP-F</i>	5'-TCACTATCTGCTTCATCCGC-3'	9850 - 9869
<i>COXIII SP-R</i>	5'-ATGAGGAGCGTTATGGAGTG-3'	9337 - 9318
<i>12S-RT</i>	5'-TGGCTGGCAGAAATTGACC-3'	896 - 877
<i>12S LP-F</i>	5'-GAGTGCTTAGTTGAACAGGG-3'	1445 - 1464
<i>12S LP-R</i>	5'-AACCTGGGGTTAGTATAGC-3'	876 - 857
<i>12S SP-F</i>	5'-ACCCTCCTCAAGTATACTTC-3'	1492 - 1511
<i>12S SP-R</i>	5'-AATCACTGCTGTTCCCGTG-3'	825 - 806

b)

RNA	Length of final PCRproduct [-poly(A)]	Length of final PCRproduct [+poly(A) 60 bp]
ND3	155 bp	~215 bp
CYTB	228 bp	~288 bp
ATP6/8	335 bp	~395 bp
COX III	271 bp	~331 bp
12 S	287 bp	-

Supplementary material 2. Genomic organization of the gene coding for the putative hmtPAP. a) Exons are depicted schematically as grey boxes and designated e1-e9. Introns are denoted i1-i9. The scale in the top illustrates the genomic region of approximately 35.5 kb, that is covered by the gene; b) *atg* indicates an initiation codon. Asterisk indicates the position of termination codon TGA. Two first and two last base pairs of each intron are underlined in order to emphasize that all exon/intron junctions match the criteria of GT-AG rule.



b)

Number	Exons			Introns		
	length (bp)	sequence of 5'-end	sequence of 3'-end	Length (bp)	sequence of 5'-end	sequence of 3'-end
1	157	<i>atg</i> gcggttc	gtggagacag	7478	<u>GT</u> gatg'gcgc	tcgttcat <u>AG</u>
2	173	gctttgaaga	tgaaagcttt	1017	<u>GT</u> aagtattt	tttggtat <u>AG</u>
3	225	ggtctctatg	tgcagaaagt	3198	<u>GT</u> aagttttt	ggctagct <u>AG</u>
4	225	atagacgatc	cgctcacaag	10167	<u>GT</u> aagtctat	tatttttc <u>AG</u>
5	212	atctcaggaa	cgaacaatag	3806	<u>GT</u> atgaccgc	tttttga <u>AG</u>
6	227	gattgccttg	accctagcag	6180	<u>GT</u> aagactag	tgtgttta <u>AG</u>
7	93	atgcagaaga	gaaacattag	81	<u>GT</u> aagtgtca	tttcttac <u>AG</u>
8	74	aattactact	tattcgacag	1992	<u>GT</u> aataatg	taatctat <u>AG</u>
9	360	ggaagggagc	tactcagaca*	-	-	-