

**S6 Table. The 10 bp 5' and 3' flanking exon sequences of introns**

The flanking sequences of 10 COX1 introns		The flanking sequences of 7 COB introns	
##### 1		##### 1	
Smik_COX1_1_168	TTATTTAATG-TTTTAGTAGT	Kser_COB_1_200	AGTAGAACAT-ATCATGAGAG
Scer_COX1_1_168	TTATTTAATG-TTTTAGTAGT	##### 2	
##### 2		Lklu_COB_1_392	ATTTTAGGT-TATTGTTGTG
Spar_COX1_1_204	ATGATTTTCT-TCTTAGTAAT	Lmey_COB_1_392	TTTCTTAGGT-TATTGTTGTG
Scer_COX1_2_203	ATGATTTTCT-TCTTAGTAAT	Sbay_COB_1_392	TTTCTTAGGT-TATTGTTGTG
##### 3		Skud_COB_1_392	TTTTTAGGT-TATTGTTGTG
Ccas_COX1_1_242	AGCTTATGGT-AATTATATGT	Smik_COB_1_392	TTTTTAGGT-TATTGTTGTG
Ncas_COX1_1_239	AGGGTTTGGT-AATTATATGT	Spar_COB_1_392	TTTTTAGGT-TATTGTTGTG
Nde1_COX1_1_239	AGGTTTGGT-AACTATATGT	##### 3	
Cgla_COX1_1_239	AGGTTTGGT-AACTATATGT	Skud_COB_2_413	TATGGACAGA-TGTCACATTG
Kser_COX1_1_239	AGGTTTGGT-AATTATATGT	Smik_COB_2_413	TATGGACAGA-TGTCACATTG
Sbay_COX1_1_239	TGGGTTTGGT-AATTATTTAT	Spar_COB_2_413	TATGGACAGA-TGTCACATTG
Smik_COX1_2_238	AGGTTTGGT-AATTATTTAT	Scer_COB_1_414	TATGGACAGA-TGTCACATTG
Lmey_COX1_1_239	AGGATTTGGT-AACTATTTAT	##### 4	
Ldas_COX1_1_239	AGGATTTGGT-AACTATTTAT	Skud_COB_3_426	ACATTGAGGT-GCACTAGTTA
Lthe_COX1_1_239	AGGGTTTGGT-AACTATTTAT	Smik_COB_3_426	ACATTGAGGT-GCACTAGTTA
Lklu_COX1_1_239	AGGGTTTGGT-AACTATTTAT	Spar_COB_3_426	ACATTGAGGT-GCACTAGTTA
Skud_COX1_1_239	AGGTTTGGT-AACTATTTAT	Scer_COB_2_427	ACATTGAGGT-GCACTAGTTA
Scer_COX1_3_237	AGGTTTGGT-AACTATTTAT	##### 5	
##### 4		Lmey_COB_2_504	GAGGTGGGTT-CTCTGTATCA
Lmey_COX1_2_384	GATGAACTGT-ATATCCTCCT	Lklu_COB_2_504	GAGGAGGGTT-CTCAGTATCA
Lthe_COX1_2_384	GATGAACTGT-ATATCCTCCT	Skud_COB_4_502	GAGGTGGGTT-CTCAGTATCT
Lklu_COX1_2_384	GATGAACTGT-ATATCCTCCT	Smik_COB_4_502	GAGGTGGGTT-CTCAGTATCT
Kser_COX1_2_384	GATGAACTGT-GTATCCTCCT	Spar_COB_4_502	GAGGTGGGTT-CTCAGTATCT
Nde1_COX1_2_384	GTTGAACTGT-ATATCCACCA	Scer_COB_3_503	GAGGTGGGTT-CTCAGTATCT
Cgla_COX1_2_384	GTTGAACTGT-ATATCCACCA	##### 6	
Sbay_COX1_2_384	GATGAACTGT-ATATCCACCA	Smik_COB_5_751	TACTTTAGGT-CATCCTGATA
Skud_COX1_2_384	GATGAACTGT-ATATCCACCA	Scer_COB_4_752	TACTTTAGGT-CATCCTGATA
Smik_COX1_3_383	GATGAACTGT-ATATCCACCA	##### 7	
Spar_COX1_2_384	GATGAACTGT-ATATCCACCA	Ccas_COB_1_806	AGCTTCTATT-GTACCTGAAT
##### 5		Smik_COB_6_801	AGCATCTATT-GTACCTGAAT
Nde1_COX1_3_706	CATTTGTTTT-GATTCTTCGG	Scer_COB_5_802	AGCATCTATT-GTACCTGAAT
Smik_COX1_4_705	CACTTATTTT-GATTCTTTGG		
Lklu_COX1_3_706	CATTTATTCT-GATTCTTTGG		
Sbay_COX1_3_706	CATTTATTTT-GATTCTTTGG		
Skud_COX1_3_706	CATTTATTTT-GATTCTTTGG		
##### 6			
Scer_COX1_4_716	ATTCTTTGGT-CACCTGAAG		
Ccas_COX1_2_721	ATTTTTGGT-CATCCGAAG		
Lmey_COX1_3_717	ATTCTTCGGT-CATCCAGAAG		
Lthe_COX1_3_717	ATTCTTCGGT-CATCCAGAAG		
Ldas_COX1_2_718	ATTCTTTGGT-CATCCAGAAG		
Ncas_COX1_2_718	ATTCTTTGGT-CATCCAGAAG		
##### 7			
Lmey_COX1_4_896	AGATGCAGAT-ACTAGAGCAT		

  

The flanking sequences of 1 21S_rRNA introns	
##### 1	
Lmey_21S_rRNA_1_2624	GCTAGGGATA-ACAGGTAAT
Ldas_21S_rRNA_1_2648	GCTAGGGATA-ACAGGTAAT
Lklu_21S_rRNA_1_2444	GCTAGGGATA-ACAGGTAAT
Ncas_21S_rRNA_1_2724	GCTAGGGATA-ACAGGTAAT
Kser_21S_rRNA_1_2439	GCTAGGGATA-ACAGGTAAT
Smik_21S_rRNA_1_2680	GCTAGGGATA-ACAGGTAAT
Spar_21S_rRNA_1_2588	GCTAGGGATA-ACAGGTAAT
Scer_21S_rRNA_1_2715	GCTAGGGATA-ACAGGTAAT

Ldas_COX1_3_897	AGATGCAGAT-CTAGAGCAT	
Sbay_COX1_4_896	AGATGCAGAT-CTAGAGCCT	
Ccas_COX1_3_900	AGATGTAGAT-CTAGAGCCT	
#####		<b>8</b>
Lmey_COX1_5_967	CAGTTGATTA-GCACTTATTT	
Ldas_COX1_4_968	CAGTTGATTA-GCACTTATTT	
Skud_COX1_4_968	CTCATGATTA-GCTCTAATCT	
Scer_COX1_5_967	CTCATGATTA-GCTCTAATCC	
Nde1_COX1_4_968	CTCATGATTA-GCAACAATTT	
Cgl1a_COX1_3_969	CTCATGATTA-GCAACAATTT	
Smik_COX1_5_967	CTCATGATTA-GCGACAATCT	
#####		<b>9</b>
Kser_COX1_3_1104	TTTCCATGAT-ACATACTACG	
Lmey_COX1_6_1101	ATTCCATGAT-ACTTACTATG	
Sbay_COX1_5_1102	ATTCCACGAT-ACTTATTACG	
Smik_COX1_6_1101	ATTCCACGAT-ACTTACTACG	
Spar_COX1_3_1104	ATTCCACGAT-ACTTACTACG	
Scer_COX1_6_1101	ATTCCACGAT-ACTTACTACG	
#####		<b>10</b>
Sbay_COX1_6_1126	GGACATTTCC-ATTATGTATT	
Skud_COX1_5_1127	GGACATTTTC-ACTATGTATT	
Smik_COX1_7_1125	GGACATTTTC-ACTATGTATT	
Spar_COX1_4_1128	GGACATTTTC-ACTATGTATT	
Scer_COX1_7_1125	GGACATTTTC-ACTATGTATT	

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Note: The number after a series of ‘#’ represented the relative location of each intron in different yeasts. The flanking sequence was named according to ‘Species\_Gene\_ID\_Loc’, where the ‘ID’ indicated the absolute location of the intron in corresponding gene and species, the ‘Loc’ indicated the insert location of the intron in the coding sequence. For example, ‘Smik\_COX1\_1\_168’ represented the first intron of *cox1* gene in MT genome of *S.mikatae*, the intron inserted in the 168th nucleotide of coding sequence. The flanking sequence was showed according to “5’ 10 bp exon sequence-3’ 10 bp exon sequence”, where the ‘-’ represented the insert location of the intron in the coding sequence.