

Supplementary Material

Pecoraro et al. Canning processes reduce DNA-based traceability of commercial tropical tunas

Table S1: 35 diagnostic positions of the Cyt b sequences of the four target species (YFT, yellowfin tuna, *Thunnus albacares* ; BET, bigeye tuna, *Thunnus obesus* ; SKJ, skipjack tuna, *Katsuwonus pelamis* ; LOT, longtail tuna, *Thunnus tonggol*) aligned against to the ortholog sequence of the mitochondrial genome of *Thunnus thynnus* (NCBI: NC_004901, positions 14665 – 14901, 236 bp) and to publicly available sequences for each of the four tuna species used as reference. The sequences obtained from the first processing level (L1-frozen samples) were aligned to the public sequences and they were considered as reference NS=0.

		2	6	9	18	21	30	33	36	39	45	63	69	72	75	84	93	96	102	105	111	120	123	129	132	144	156	162	174	180	183	192	198	213	219	231
NC 004901	<i>Thunnus thynnus</i>	T	C	C	A	T	C	T	C	A	A	A	A	C	G	T	C	C	T	C	C	A	A	G	T	T	T	C	C	T	C	T	T	A	T	T
DQ080271	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
DQ080281	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
DQ080282	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
DQ080283	<i>Thunnus albacares</i>	.	.	.	.	.	.	C	.	.	G	.	.	.	A	.	.	.	C	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
DQ080284	<i>Thunnus albacares</i>	.	.	.	.	.	.	C	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
DQ080285	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
DQ080286	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
DQ080287	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
DQ080288	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	C	T	.	.	T	.	.	.	.	.
DQ497898	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
DQ497899	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
DQ497900	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
DQ497901	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
DQ497902	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
DQ497903	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
DQ497904	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
EF141179	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
EF392629	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	T	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
EF392630	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
EF456025	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
EF456026	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
EU250968	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	C	T	.	.	T	.	.	.	.	.
EU250969	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
EU250970	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
EU250971	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
EU250972	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
EU250973	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
EU250979	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
EU250980	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
EU250984	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
EU250985	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
EU250986	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
EU427561	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
KC522353	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.

Supplementary Material

		2	6	9	18	21	30	33	36	39	45	63	69	72	75	84	93	96	102	105	111	120	123	129	132	144	156	162	174	180	183	192	198	213	219	231	
KU904413	<i>Thunnus albacares</i>	.	.	.	.	.	.	C	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	G	.	.
KX755257	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
KX755258	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
KX755259	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	C	.	T	.	.	T	.	.	.	.	.
KX755260	<i>Thunnus albacares</i>	.	.	.	.	.	.	C	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
KX755261	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
KX755262	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
KX755263	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
KX755264	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
KX755265	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
KX755266	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
KX755267	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
KX755268	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
KX755269	<i>Thunnus albacares</i>	.	.	.	.	.	.	C	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
KX755270	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
KX755271	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
KX755272	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
KX755273	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	C	.	T	.	.	T	.	.	.	.	.
KX755274	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
MG017682	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
MG017683	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	T	.	.	.	C	.
MG017684	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	G	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
MG017685	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	G	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
MG017686	<i>Thunnus albacares</i>	.	.	.	.	.	.	C	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
MG017687	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	.	.
KM588080	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	.
NC 014061	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
GU256528	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
JN086153	<i>Thunnus albacares</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
KT724724	<i>Thunnus albacares</i>	.	.	.	.	.	.	C	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
YFT-AO-L1-1		.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	C
YFT-AO-L1-2		.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	C
YFT-AO-L1-3		.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	C
YFT-IO-L1-1		.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	C
YFT-IO-L1-2		.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	C
YFT-IO-L1-3		.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	C
YFT-WCPO-L1-1		.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	C
YFT-WCPO-L1-2		.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	C	C
YFT-WCPO-L1-3		G	.	.	.	A	T	.	.	T	.	.	.	C	C
YFT-EPO-L1-1		G	.	.	.	A	C	.	T	.	.	T	.	.	.	C	C
YFT-EPO-L1-2		G	.	.	.	A	C	.	T	.	.	T	.	.	.	C	C
YFT-EPO-L1-3		G	.	.	.	A	C	.	T	.	.	T	.	.	.	C	C

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		2	6	9	18	21	30	33	36	39	45	63	69	72	75	84	93	96	102	105	111	120	123	129	132	144	156	162	174	180	183	192	198	213	219	231	
DQ080272	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
DQ080273	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	C	.	C	.	.	.	.
DQ080274	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
DQ080275	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
DQ080276	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	G	.	.
DQ080277	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	G	.	.	.
DQ080278	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	G	.	.	.
DQ080279	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
DQ080280	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
DQ198013	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
DQ497910	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
DQ497911	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	C	T	.	.	.	C	.	.	.	.
DQ497912	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
EF141180	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	G	.	.
EF392631	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
EF392632	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	G	.	.	.
EF439240	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	G	.	.	.
EF439241	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	G	.	.	.
EF456027	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
EF456028	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	G	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	T	.	.	.	.	.
EU224036	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	G	.	.	.
EU349400	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
EU349401	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
EU349402	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
EU935767	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
EU935768	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
EU935769	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
EU935770	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
EU935771	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
EU935772	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
EU935773	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
GU256525	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	G	.	.	.
KY400011	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	G	.	.	.
NC 014059	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	G	.	.	.
JN086152	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	C	.	C	.	.	.	.
KC522356	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
MG017688	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
MG017689	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
MG017690	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
MG017691	<i>Thunnus obesus</i>	A	A	.	.	.	C	T	.	.	.	C
MG017692	<i>Thunnus obesus</i>	A	A	.	.	.	C	T	.	.	.	C
MG017693	<i>Thunnus obesus</i>	A	A	.	.	.	C	T	.	C	.	C

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		2	6	9	18	21	30	33	36	39	45	63	69	72	75	84	93	96	102	105	111	120	123	129	132	144	156	162	174	180	183	192	198	213	219	231		
MG017694	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
MG017695	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
MG017696	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	.	.
MG017697	<i>Thunnus obesus</i>	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	C	.	C	.	.	.	.
	BET-IO-L1-1	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	C	C
	BET-IO-L1-2	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	C	C
	BET-IO-L1-3	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	C	C
	BET-EPO-L1-1	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	C	C
	BET-EPO-L1-2	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	C	C
	BET-EPO-L1-3	.	.	.	.	.	.	.	.	.	.	.	.	A	A	.	.	.	C	.	.	.	.	.	.	.	.	.	T	.	.	.	C	.	.	C	C
DQ197958	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C		
EF392592	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C		
EF392591	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	.	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C		
EF439209	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C		
EF439208	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C		
EF427567	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C		
EF427566	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C		
KP669172	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C		
KP669171	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	.	.	C	.	T	C	A	T	A	T	T	C	T	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C		
KP669170	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	.	C	
KP669169	<i>Katsuwonus pelamis</i>	C	.	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	.	C	
KP669168	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C		
KP669167	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C		
KP669166	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C		
KP669165	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	.	C	
KP669164	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	A	A	.	C	T	A	C	A	C	C	.	.	C		
KP669163	<i>Katsuwonus pelamis</i>	C	T	T	T	C	.	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	.	C	
KP669162	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	.	C	
KP669161	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C		
KP669160	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C		
KP669159	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C		
KP669158	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	.	C	
KP669157	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	C	A	T	T	C	T	A	.	.	A	A	.	C	T	A	C	A	C	C	.	.	C		
KP669156	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C		
KP669155	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	.	.	
KP669154	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C		
KP669153	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	.		
KP669152	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	.	C	
KP669151	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C		
KP669150	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	.	C	
KP669149	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	.	C	
KP669148	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	G	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C		

Supplementary Material

		2	6	9	18	21	30	33	36	39	45	63	69	72	75	84	93	96	102	105	111	120	123	129	132	144	156	162	174	180	183	192	198	213	219	231
KP669147	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669146	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669145	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KP669144	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KP669143	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	A	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669142	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KP669141	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669140	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KP669139	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KP669138	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	T	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KP669137	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KP669136	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	C	C	A	T	A	T	T	C	.	A	.	.	A	A	.	C	T	A	C	A	C	C	G	.	C
KP669135	<i>Katsuwonos pelamis</i>	C	T	T	.	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669134	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669133	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669132	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	C	C
KP669131	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669130	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KP669129	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669128	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KP669127	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	.	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669126	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KP669125	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	.	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669124	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669123	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KP669122	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669121	<i>Katsuwonos pelamis</i>	C	.	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669120	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669119	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KP669118	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669117	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	C	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669116	<i>Katsuwonos pelamis</i>	C	.	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KP669115	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	A	A	.	C	T	A	C	A	C	C	.	.	.
KP669114	<i>Katsuwonos pelamis</i>	C	T	T	C	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669113	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KP669112	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KP669111	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669110	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669109	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KP669108	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669107	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669106	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C

Supplementary Material

		2	6	9	18	21	30	33	36	39	45	63	69	72	75	84	93	96	102	105	111	120	123	129	132	144	156	162	174	180	183	192	198	213	219	231
KP669105	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KP669104	Katsuwonus pelamis	C	T	T	T	C	.	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KP669103	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KP669102	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KP669101	Katsuwonus pelamis	C	T	T	T	.	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KP669100	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617389	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	A	T	A	C	A	C	C	G	.	C
KJ617388	Katsuwonus pelamis	C	T	T	C	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617387	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617386	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617385	Katsuwonus pelamis	C	.	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617384	Katsuwonus pelamis	C	.	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617383	Katsuwonus pelamis	C	.	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617382	Katsuwonus pelamis	C	.	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617381	Katsuwonus pelamis	C	.	T	T	C	.	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617380	Katsuwonus pelamis	C	.	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	.	G	.	C
KJ617379	Katsuwonus pelamis	C	.	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617378	Katsuwonus pelamis	C	.	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617377	Katsuwonus pelamis	C	.	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617376	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617375	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617374	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617373	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617372	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617371	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617370	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617369	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	.	.	.	C
KJ617368	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617367	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617366	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	C	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617365	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617364	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617363	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617362	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617361	Katsuwonus pelamis	C	.	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617360	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617359	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617358	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617357	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617356	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617355	Katsuwonus pelamis	C	.	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	G	C	A	C	C	.	.	C
KJ617354	Katsuwonus pelamis	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C

Supplementary Material

		2	6	9	18	21	30	33	36	39	45	63	69	72	75	84	93	96	102	105	111	120	123	129	132	144	156	162	174	180	183	192	198	213	219	231
KJ617353	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617352	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617351	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	.	A	C	A	C	C	.	.	C
KJ617350	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617349	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617348	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617347	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617346	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617345	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617344	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617343	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617342	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617341	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617340	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617339	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617338	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617337	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617336	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617335	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617334	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617333	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617332	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617331	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617330	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617329	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	G	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617328	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617327	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	C	C
KJ617326	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617325	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617324	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617323	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617322	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617321	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617320	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617319	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617318	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617317	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617316	<i>Katsuwonus pelamis</i>	C	.	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617315	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617314	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617313	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617312	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C

Supplementary Material

		2	6	9	18	21	30	33	36	39	45	63	69	72	75	84	93	96	102	105	111	120	123	129	132	144	156	162	174	180	183	192	198	213	219	231	
KJ617311	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	213	219	231
KJ617310	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C	
KJ617309	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C	
KJ617308	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C	
KJ617307	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C	
KJ617306	<i>Katsuwonus pelamis</i>	C	T	T	T	C	.	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C	
KJ617305	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C	
KJ617304	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C	
KJ617303	<i>Katsuwonus pelamis</i>	C	T	T	T	C	.	A	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C	
KJ617302	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	A	.	C	.	T	T	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C	
KJ617301	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C	
KJ617300	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C	
KJ617299	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C	
KJ617298	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	C	C	
KJ617297	<i>Katsuwonus pelamis</i>	C	T	T	T	C	.	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C	
KJ617296	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	.	
KJ617295	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C	
KJ617294	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	G	C	A	C	C	G	.	C	
KJ617293	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	G	C	A	C	C	.	.	C	
KJ617292	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C	
KJ617291	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C	
KJ617290	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C	
KJ617289	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C	
KJ617288	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C	
KJ617287	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C	
KJ617286	<i>Katsuwonus pelamis</i>	C	T	T	.	C	T	C	.	.	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C	
KJ617285	<i>Katsuwonus pelamis</i>	C	T	T	.	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C	
KJ617284	<i>Katsuwonus pelamis</i>	C	T	T	.	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	G	.	C	T	A	C	A	C	C	G	.	C	
KJ617283	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	C	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C	
KJ617282	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	C	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C	
KJ617281	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C	
KJ617280	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C	
KJ617279	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C	
KJ617278	<i>Katsuwonus pelamis</i>	C	.	T	C	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C	
KJ617277	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C	
KJ617276	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C	
KJ617275	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C	
KJ617274	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C	
KJ617273	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C	
KJ617272	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C	
KJ617271	<i>Katsuwonus pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C	
KJ617270	<i>Katsuwonus pelamis</i>	C	T	T	T	C	.	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C	

Supplementary Material

		2	6	9	18	21	30	33	36	39	45	63	69	72	75	84	93	96	102	105	111	120	123	129	132	144	156	162	174	180	183	192	198	213	219	231
KJ617269	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617268	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617267	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617266	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617265	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617264	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	.	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617263	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KJ617262	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617261	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617260	<i>Katsuwonos pelamis</i>	C	T	T	.	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617259	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
KJ617258	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
DQ497840	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
DQ497839	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
DQ497838	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
DQ080321	<i>Katsuwonos pelamis</i>	C	.	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
DQ080320	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	C
DQ080319	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
DQ080318	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
DQ080317	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
DQ080316	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
DQ080315	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
EU250983	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
EU250981	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	.	A	C	A	C	C	.	.	C
KU904414	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
EU250982	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
EU250975	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
EU250974	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	C
EU250976	<i>Katsuwonos pelamis</i>	C	.	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	G	C	A	C	C	.	.	C
EU250967	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
AB101290	<i>Katsuwonos pelamis</i>	C	.	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
EU250966	<i>Katsuwonos pelamis</i>	C	T	T	T	.	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
NC 005316	<i>Katsuwonos pelamis</i>	C	.	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
GU256527	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
EF141175	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
JN086155	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
KM605252	<i>Katsuwonos pelamis</i>	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
SKJ-AO-L1-1		C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
SKJ-AO-L1-2		C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	.	C
SKJ-AO-L1-3		C	T	T	T	C	T	C	.	C	.	T	C	A	C	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C
SKJ-IO-L1-1		C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	C
SKJ-IO-L1-2		C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	.	C

Supplementary Material

		2	6	9	18	21	30	33	36	39	45	63	69	72	75	84	93	96	102	105	111	120	123	129	132	144	156	162	174	180	183	192	198	213	219	231
	SKJ-IO-L1-3	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	G	.	C
	SKJ-WCPO-L1-1	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	G	C	C
	SKJ-WCPO-L1-2	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	C	C
	SKJ-WCPO-L1-3	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	.	C
	SKJ-EPO-L1-1	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	T	A	.	.	.	A	.	C	T	A	C	A	C	C	.	C	C
	SKJ-EPO-L1-2	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	.	.	A	.	C	T	A	C	A	C	C	.	C	C
	SKJ-EPO-L1-3	C	T	T	T	C	T	C	.	C	.	T	C	A	T	A	T	T	C	.	A	.	G	.	A	.	C	T	A	C	A	C	C	.	C	C
MG017702	<i>Thunnus tonggol</i>	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	.	.	.
DQ497920	<i>Thunnus tonggol</i>	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	.	.	.
DQ497919	<i>Thunnus tonggol</i>	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	.	.	.
DQ497918	<i>Thunnus tonggol</i>	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	G	.	A	.	.	.	T	.	.	.	.	.	.	.	.
DQ497917	<i>Thunnus tonggol</i>	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	G	.	A	.	.	.	T	.	.	.	.	.	.	.	.
DQ497916	<i>Thunnus tonggol</i>	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	C	.	.
DQ497915	<i>Thunnus tonggol</i>	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	.	.	.
EU935788	<i>Thunnus tonggol</i>	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	.	.	.
EU935787	<i>Thunnus tonggol</i>	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	.	.	.
EU935786	<i>Thunnus tonggol</i>	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	.	.	.
EU935785	<i>Thunnus tonggol</i>	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	.	.	.
EU349415	<i>Thunnus tonggol</i>	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	.	.	.
EU349414	<i>Thunnus tonggol</i>	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	.	.	.
EU349413	<i>Thunnus tonggol</i>	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	.	.	.
DQ497914	<i>Thunnus tonggol</i>	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	.	.	.
DQ497913	<i>Thunnus tonggol</i>	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	.	.	.
EF141181	<i>Thunnus tonggol</i>	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	.	.	.
KM055411	<i>Thunnus tonggol</i>	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	.	.	.
EU349412	<i>Thunnus tonggol</i>	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	.	.	.
EU935790	<i>Thunnus tonggol</i>	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	.	.	.
EU935789	<i>Thunnus tonggol</i>	.	.	.	.	.	.	.	T	.	.	.	.	.	T	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	.	.	.
KC522359	<i>Thunnus tonggol</i>	.	.	.	C	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	C	.	.	C
HQ425780	<i>Thunnus tonggol</i>	.	.	.	C	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	C	.	.	.
JN086154	<i>Thunnus tonggol</i>	.	.	.	C	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	C	.	.	.
NC 020673	<i>Thunnus tonggol</i>	.	.	.	C	.	.	.	.	.	.	.	.	.	A	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	C	.	.	.
	LOT-IO-L1-1	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	.	C	C
	LOT-IO-L1-2	.	.	.	.	.	.	.	.	.	.	.	.	.	T	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	.	C	C
	LOT-IO-L1-3	.	.	.	.	.	T	.	.	.	.	.	.	.	T	.	.	.	.	.	.	G	.	.	.	.	.	T	.	.	.	.	.	.	C	C