

Supplementary material:

Table 1: Coding Sequences of the First Exon of  $\beta$ -Globin Gene of Eleven Different Species

#	Species	Total	T (%)	C (%)	A (%)	G (%)	GC (%)	Tm (°C)	Sequence
1	Bovine	86	20.9	18.6	19.8	40.7	59.3	87.5	ATGCTGACTGCTGAGGAGAAGGCTGCCGTACCGCCTTTGGGGCAAGGTGAAAGTGGATGAAGTTGGTGGTGAGGCCCTGGGCAG
2	Chimpanzee	105	22.9	19	19	39	58	87.2	ATGGTGCACCTGACTCCTGAGGAGAAGTCTGCCGTTACTGCCCTGTGGGCAAGGTGAACGTGGATGAAGTTGGTGGTGAGGCCCTGGGCAGGTTGGTATCAAG
3	Gallus	92	16.3	26.1	20.7	37	63.1	88.8	ATGGTGCACCTGACTGCTGAGGAGAAGCAGCTCATACCGCCCTCTGGGGCAAGGTCAATGTGGCCGAATGTGGGGCCGAAGCCCTGGCCAG
4	Goat	86	19.8	19.8	19.8	40.7	60.5	87.9	ATGCTGACTGCTGAGGAGAAGGCTGCCGTACCGCTTCTGGGGCAAGGTGAAAGTGGATGAAGTTGGTGGTGAGGCCCTGGGCAG
5	Gorilla	93	21.5	20.4	18.3	39.8	60.2	87.7	ATGGTGCACCTGACTCCTGAGGAGAAGTCTGCCGTTACTGCCCTGTGGGGCAAGGTGAACGTGGATGAAGTTGGTGGTGAGGCCCTGGGCAGG
6	Human	92	22.8	20.7	18.5	38	58.7	87.3	ATGGTGCACCTGACTCCTGAGGAGAAGTCTGCCGTTACTGCCCTGTGGGGCAAGGTGAACGTGGATGAAGTTGGTGGTGAGGCCCTGGGCAG
7	Lemur	92	25	16.3	20.7	38	54.3	85.2	ATGACTTGTGAGTGTGAGGAGAATGCTCATGTCACTCTCTGTGGGGCAAGGTGGATGTAGAGAAAGTTGGTGGCGAGGCCCTGGGCAG
8	Mouse	94	24.5	21.3	18.1	36.2	57.5	86.5	ATGGTGCACCTGACTGATGCTGAGAAGTCTGCTGTCTTCTGCCCTGTGGGGCAAGGTGAACCCCGATGAAGTTGGTGGTGAGGCCCTGGGCAGG
9	Opossum	92	23.9	21.7	22.8	31.5	53.2	84.9	ATGGTGCACCTGACTCCTGAGGAGAAGTCTGCCGTTACTGCCCTGTGGGGCAAGGTGAACGTGGATGAAGTTGGTGGTGAGGCCCTGGGCAG
10	Rabbit	90	22.2	17.8	18.9	41.1	58.9	86.7	ATGGTGCATCTGTCCAGTGAAGTCTGCCGTTACTGCCCTGTGGGGCAAGGTGAACGTGGATGAAGTTGGTGGTGAGGCCCTGGGCAG
11	Rat	92	22.8	19.6	21.7	35.9	55.5	86.9	ATGGTGCACCTAAGTGTGCTGAGAAGGCTACTGTTAGTGGCCTGTGGGGCAAGGTGAACCCGTGATAATGTTGGCGCTGAGGCCCTGGGCAG

List of Protein Accession numbers for class II  $\alpha$ -chains of MHC proteins

>HumanDRA\_M60334.mhctab2seq; >MacacaDRA\_L27739.mhctab2seq; >CowDRA\_D37956.mhctab2seq; >SheepDRA\_M73983.mhctab2seq; >DogDRA\_L37332.mhctab2seq; >RatEA\_Y00480.mhctab2seq; >PigDRA\_M93028.mhctab2seq; >HorseDRA\_M60100.mhctab2seq; >RabbitDRA\_M28161.mhctab2seq; >WallabyDRA\_U18109.mhctab2seq; >HumanDQA\_M26041.mhctab2seq; >CowDQA\_D50045.mhctab2seq; >SheepDQA\_M93430.mhctab2seq; >DogDQA\_U42407.mhctab2seq; >MouseAA\_M21931.mhctab2seq; >RatBA\_X14879.mhctab2seq; >PigDQA\_M29938.mhctab2seq; >HorseDQA\_L33909.mhctab2seq; >RabbitDQA\_M15557.mhctab2seq; >HumanDPA\_M27487.mhctab2seq; >RatPA\_S80415.mhctab2seq; >RabbitDPA\_M22640.mhctab2seq; >HumanDNA\_M26039.mhctab2seq; >SheepDNA\_Z29533.mhctab2seq; >MouseNA\_M95514.mhctab2seq; >WallabyDNA\_U18110.mhctab2seq; >ZfishA\_L19445.mhctab2seq; >ZfishA\_L19446.mhctab2seq; >ZfishA\_L19450.mhctab2seq; >ZfishA\_L19451.mhctab2seq; >SharkA\_M89950.mhctab2seq