

Supplemental files

Supplemental Table 1: The red jungle fowl *Gallus gallus* TCR gene loci's BAC clone information.

TCR loci	Chromosome	Chromosomal location of the TCR locus (Kb)	BAC clone	Clone length (Kb)	Chromosomal location (kb)
TCR α/δ	27	0~1000	71M20	120	23~142
			73F9	193	179~372
			96I6	211	191~402
			64J24	188	347~535
			89G18	198	433~631
			61E3	276	648~927
			75B4	116	877~993
TCR β	1	81180~81370	22I9	201	81166~81367
			63N4	269	81320~81588
			166K12	182	81276~81457
			33O1	197	81374~81571
			167M2	197	81166~81364
TCR γ	2	49150~49230	174P24	205	49109~49314
			35M9	229	49132~49361

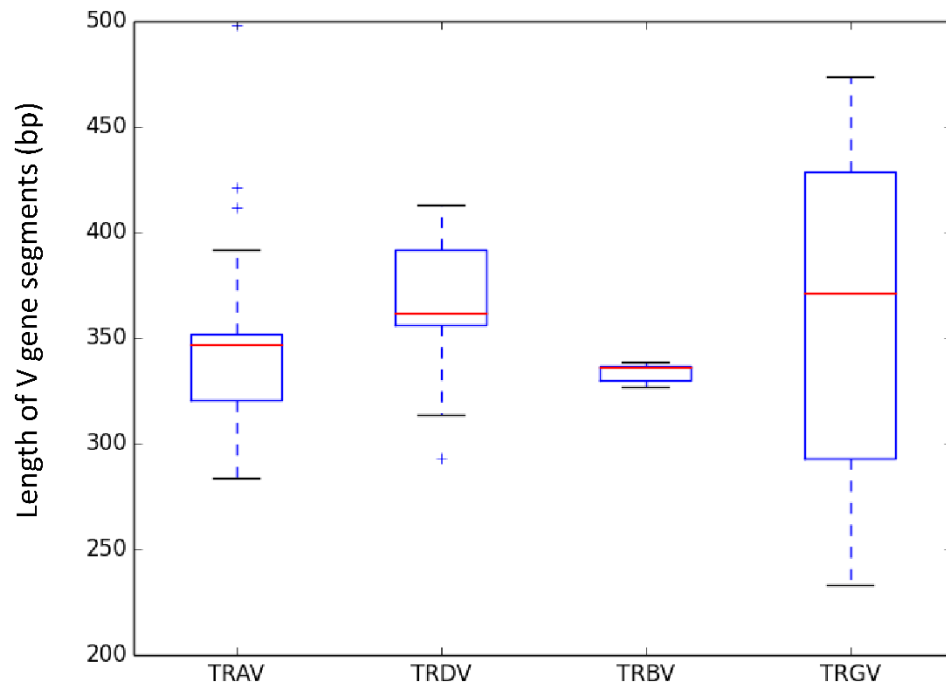
Supplemental Table 2: The complete sequences of BAC clones using cross-reference error-correction sequencing approach.

Supplemental Table 3: Raw data of the chicken TCR loci BAC library's high-throughput sequencing result.

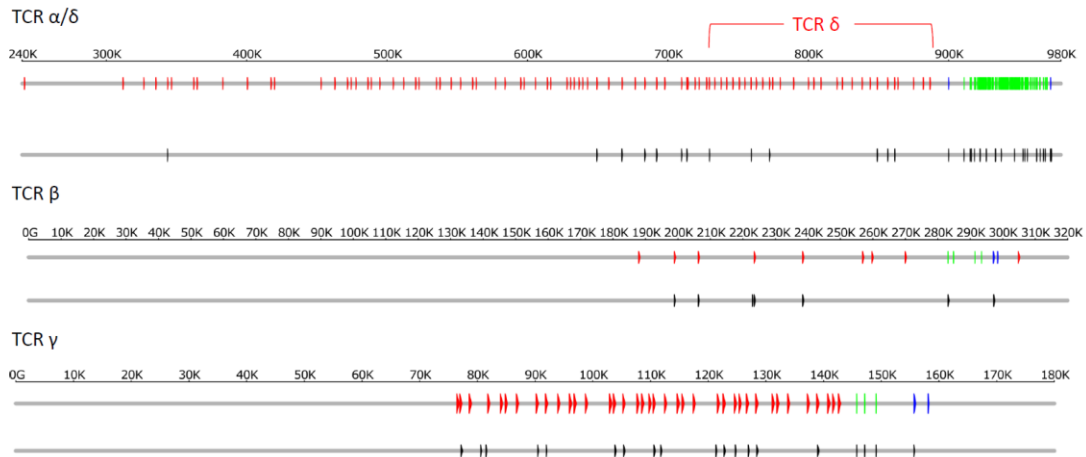
Clone name	Read length	Number of read pairs			Raw data (Mb)	Read quality	
		Raw	High quality	Beside vector		Read 1	Read 2
71M20	250	686806	390587	372660	343	28.8	25.6
73F9	250	677107	431183	408733	339	29.6	27.7
64J24	250	358339	204122	194527	179	29	25.7
89G18	250	435819	268341	255902	218	29.3	26.8
61E3	250	325733	120277	114914	163	30.2	28
75B4	250	909424	891360	853733	455	28.9	26.6
172L21	250	201328	211561	203393	101	29.4	26.9
167M2	250	268903	167888	159380	134	20	27.7
63N4	250	235069	149425	143946	118	30.5	28.2
174P24	250	473548	315551	302066	237	30.8	29.1

Supplemental Table 4: GenBank accession numbers for phylogenetic tree.

Supplemental Figure 1: Statistical illustration of the length of chicken TCR V gene segments.

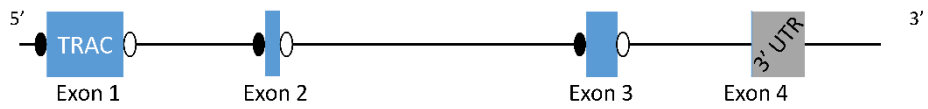


Supplemental Figure 2: T cell receptor repertoire derived from peripheral whole blood of a white leghorns chicken. The expressed genes segments (dark) are shown by their corresponding location in order across the locus.



Supplemental Figure 3: exon and intron organization of the chicken TCR genes. Indicated in white circles are the donor splice site (GT) and in black the acceptor splice sites (AG).

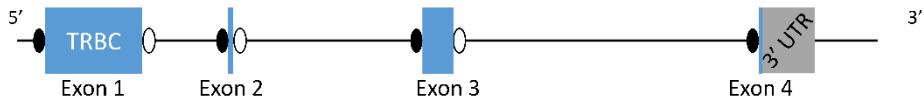
I. TRA



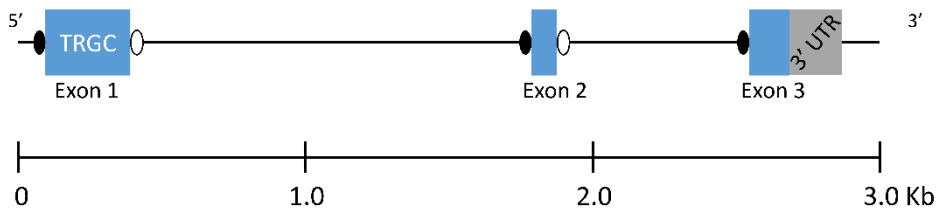
II. TRD



III. TRB



IV. TRG



Supplemental Figure 4: An illustration of pair duplication scenario of V α gene segments on TCR α /TCR δ locus. A colour key of the gene segments is provided at the bottom.

