## Supplementary table S1

Primers used for PCR and qRT-PCR analysis. References and accession numbers.
Henrik Ring et al.
Title: Increased A-to-I RNA editing of the transcript for α3 $GABA_A$ receptor subunit during chick retinal development"

| Subunit (chick) | Forward Primer | Reverse Primer | Accession number (NCBI) | Ensembl Gene | Chicken | Human orthologue |
|---|---|---|---|---|---|---|
| **α1** | 5'-tgcgaggaactcactccctaag-3' | 5'-gcacaccgctataaaccaatcc-3' | NM_204318.1 | ENSGALG00000001698 | GBRA1_CHICK[1)] | GABRA1[23)] |
| **α2** | 5'-tctgcagttgtagcgctcttg-3' | 5'-cagacagcgataaaccaatcca-3' | XM_001233849.1 | ENSGALG00000014206 | IPI00603099.3 | GABRA2[2)] |
| **α3 (qRT PCR)** | 5'-cgcctgaaccaatatgacctg-3' | 5'-tcgaaccatctctgtcccaac-3' | XM_420268.2 | ENSGALG00000007269 | IPI00583603.2 | GABRA3[2)] |
| **α3 PCR (sanger)** | 5'-ggtgtcaccactgtgctcacc-3' | 5'-gcagtagcagtggcagcagcac-3' | | | | |
| **α3 PCR (pyroseq)** | 5'-gcaagaaactcgttacctaaagtggcgt-3' | 5'-(Bio)-gcttggtgaagtagttgacagtggcaaa-3' | | | | |
| **α3 (pyroseq)** | 5'-cgacggccatggactggtt-3' | | | | | |
| **α4** | 5'-cacacacgagtacagatgccaa-3' | 5'-tgtcaattcgactcccacca-3' | XM_420724.2 | ENSGALG00000014202 | IPI00602335.3 | GABRA4[3)] |
| **α5** | 5'-acaacctctgtggttgtggct-3' | 5'-agttcccacagtttgtcccatc-3' | XM_416880.2 | ENSGALG00000016744 | IPI00812061.1 | GABRA5[4)] |
| **α6** | 5'-cacctgttggaggcacaagtaa-3' | 5'-caaatgccactggaaagagga-3' | NM_205058.1 | ENSGALG00000001695 | GBRA6_CHICK[5)] | GABRA6[24)] |
| **β1** (foot- note fig 1, 3) | 5'-cacatatgccttccacgttgat-3' | 5'-attccaagagccactctggct-3' | | ENSGALG00000014200 | IPI00591094.3 | GABRB1[6)] |
| **β4** (foot- note fig 2, 3) | 5-ctggatatgaacaacgagctgc-3' | 5'-gtttcgagagtcgccaacact-3' | | ENSGALG00000007255 | GBRB4_CHICK[7)] | - |
| **β2** | 5'-cttcgttttcatggctctgcta-3' | 5'-gctttcttttgacgctgaggtc-3' | XM_001232377.1 | ENSGALG00000001690 | Q90590_CHICK[8)] | GABRB2[25)] |
| | | | XM_414492.2 | | | |
| **β3** | 5'-aaccgaatgattcgccttca-3' | 5'-tccatcatacaagctgctgtgg-3' | NM_205346.1 | ENSGALG00000016745 | GBRB3_CHICK[9)] | GABRB3[26)] |
| **γ1** | 5'-ggtccttgcaccaaagattcat-3' | 5'-tctggccgaagcttattgtcat-3' | XM_420725.2 | ENSGALG00000020143 | Q7LZ70_CHICK[10)] | GABRG1[11)] |
| **γ2** | 5'-tgttttctctgcactggtggaa-3' | 5'-cttggctttctgttgctgacaa-3' | NM_205345.2 | ENSGALG00000001706 | GBRG2_CHICK[12)] | GABRG2[27)] |
| **γ3** | 5'-cagcaacatggttggtttgatc-3' | 5'-cagtgtgcttctgctgtcttgg-3' | XM_001233420.1 | ENSGALG00000019144 | IPI00811977.2 | GABRG3[13)] |
| **ε (γ4)** | 5'-atgaagatgacgaccctggct-3' | 5'-tgcagcagaagaacctctcaca-3' | NM_205245.1 | ENSGALG00000020292 | GBRG4_CHICK[14)] | GABRE[28)] |
| **δ** | 5'-ggattggaggtcctcctgttaa-3' | 5'-gagatgtggtcaatgctggcta-3' | XM_001234040.1 | ENSGALG00000001282 | IPI00599008.2 | GABRD[15)] |
| **π** | 5'-aagcttcacactggatgctcg-3' | 5'-gtgcaggaaggacctttttgac-3' | XM_414507.2 | ENSGALG00000002152 | IPI00582090.2 | GABRP[16)] |
| **NKCC1** | 5'-ctggcgacaaagtgacatgaga-3' | 5'-cctcctttaggcggatgacaa-3' | XR_027218.1 | ENSGALG00000014690 | IPI00600831.3 | SLC12A2[17)] |
| **KCC2** | 5'-acggctgtgaagctcaatgag-3' | 5'-ttcatccccctttccggttg-3' | | ENSGALG00000006930 | IPI00571618.3 | SLC12A5[18)] |
| **ADAR1** | 5'-cacctgaacagccgttgtgaa-3' | 5'-agctccccaacacccttgat-3' | XM_001232161.1 | ENSGALG00000021475 | Q2P9U9_CHICK[19)] | ADAR[29)] |
| **ADAR2** | 5'-atccctgtgcgctctactacca-3' | 5'-acccaatacgttccaccttgc-3' | NM_001111074.1 | ENSGALG00000007527 | ADARB1[20)] | ADARB1[30)] |
| | | | NM_204240.2 | | | |
| **β actin** | 5'-aggtcatcaccattggcaatg-3' | 5'-cccaagaaagatggctggaa-3' | NM_205518.1 | | ACTB[21)] | |

| | | | | | | |
|---|---|---|---|---|---|---|
| **TBP** | 5'-tagcccgatgatgccgtat-3' | 5'-gttccctgtgtcgcttgc-3' | NM_205103.1 | ENSGALG00000011171 | TBP_CHICK[22)] | TBP[31)] |
| **β2 microglobulin** | 5'-aaggagccgcaggtctac-3' | 5'-cttgctctttgccgtcatac-3' | NM_001001750.1 | ENSGALG00000002160 | B2MG_CHICK[32] | B2M[33] |
| **GAPDH** | 5'-gggaagcttactggaatggct-3' | 5'-ggcaggtcaggtcaacaaca-3' | NM_204305.1 | ENSGALG00000014442 | G3P_CHICK[34] | GAPDH[35] |


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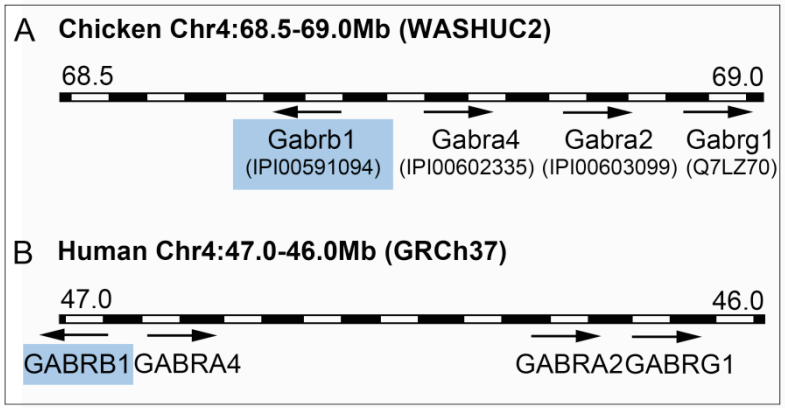


Foot-note figure 1. Conserved synteny in the gene cluster holding GABRB1 in chick and human genomes. Schematic diagram of the localization of GABRB1 in relation to GABRA4, GABRA2 and GABRG1 on A) chick chromosome 4 and B) human chromosome 4. Compiled from Ensembl release 57. Mb; Mega bases

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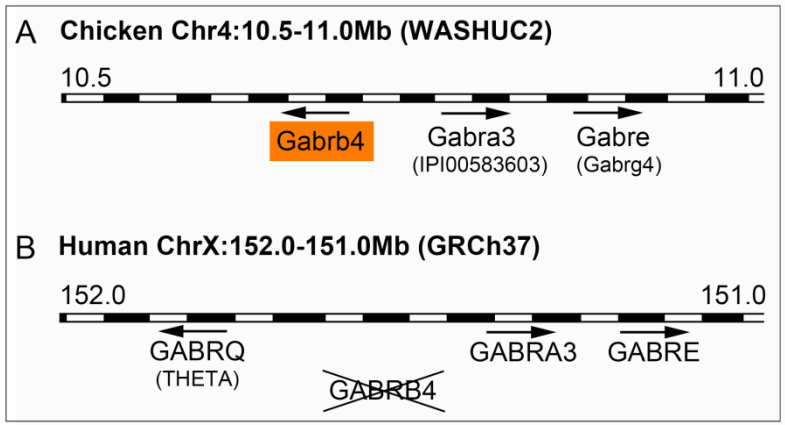
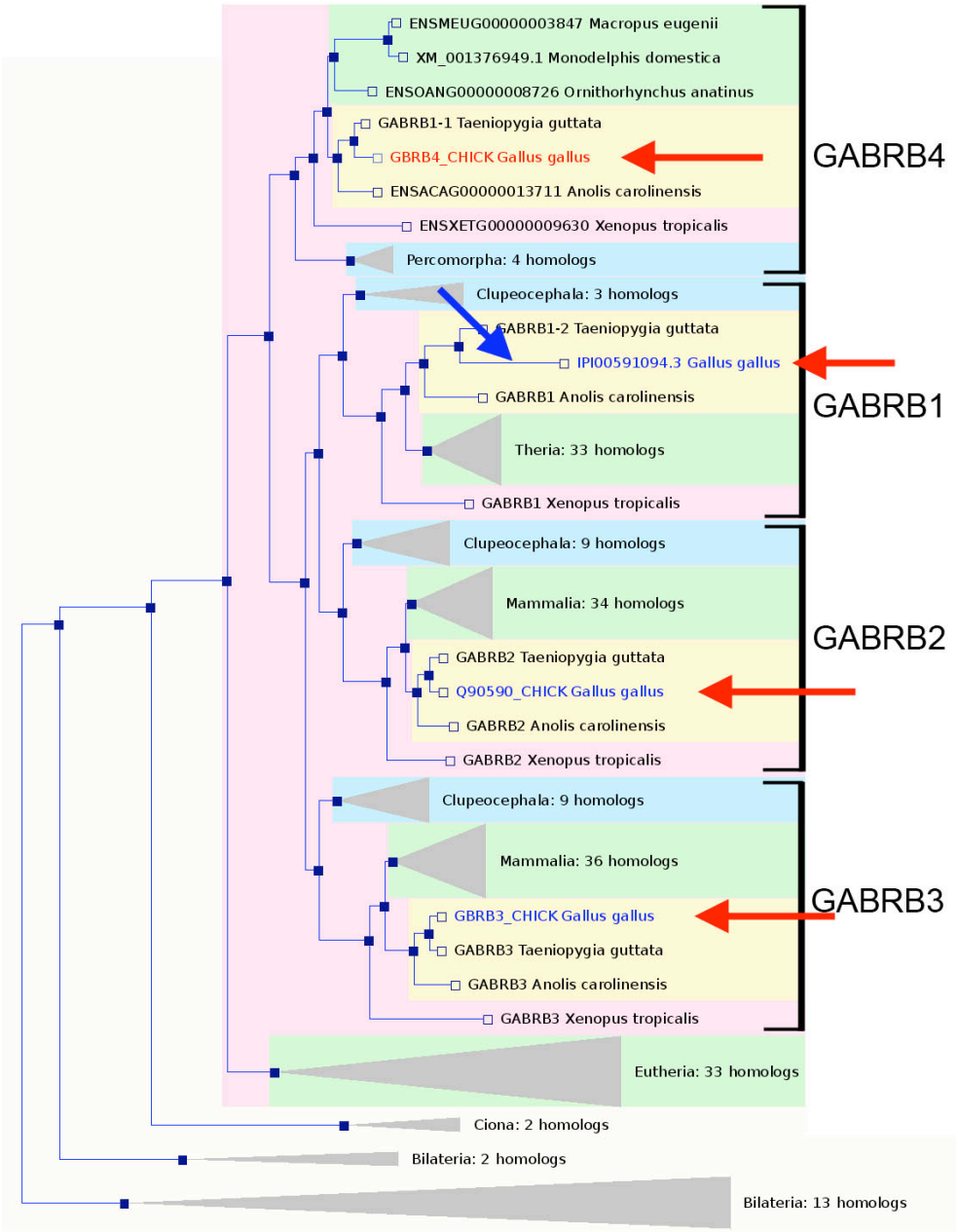



Foot-note figure 2. Schematic diagram of the conserved synteny in the gene cluster holding several GABR genes on A) chick chromosome 4 with GABRB4, GABRA3 and GABRE. B) The orthologous segment in the human genome lacks the human orthologue of GABRB4 but have BANRA3 and GABRE. Compiled from Ensembl release 57. Mb; Mega bases




Foot-note figure 3. Phylogenetic analysis of GABRB1, B2, B3 and B4 subunit $GABA_A$ receptor sub-family. Maximum likelihood phylogenetic tree based on all available vertebrate $GABA_A$ receptor ß subunit sequences showing the existence and relation between chick Gabrb1 and B4. Note the chick sequences indicated by the red arrows. Blue arrow points at the relatively long branch length for chick Gabrb1, indicating a relaxed evolutionary constraint compared to chick B2, B3 and B4. Note also that only 3 mammlian (1 proto-, 2 metatherian) B4 orthologs exist.

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