

a)  Genomic map of the *Grin2B* locus on mouse chromosome 6. The map shows the *Grin2B* gene structure with exons as blue boxes and introns as lines. A scale bar indicates 50 kb. The AK043754 cDNA is shown as an orange line. The *Emp1* gene is shown as a blue box. Mouse-Chicken ECRs are indicated by vertical bars below the gene structure.

(b)

Genomic tracks for *Grin2B* and *AK043754* across five species: human, cow, opossum, chicken, lizard, and frog. The tracks show H3K4me1 (green) and Evofold (blue) enrichment. The *Grin2B* gene is indicated by a blue arrow, and the *AK043754* gene is indicated by a red arrow. The tracks are color-coded: blue for *Grin2B* and red for *AK043754*. The tracks are labeled with 100%, 55%, and 10% on the right side.

Diagram illustrating the alignment of the 5' UTRs of the mouse, opossum, zebrafish, and chicken genes. The mouse sequence is the reference. The opossum sequence shows a conserved polyA signal (red line) and regions of high identity (black and grey). The zebrafish and chicken sequences also show regions of high identity. A 100 bp scale bar is provided.

Legend:

- conserved polyA signal
- >75% identity over 100 bp
- >50% identity over 100 bp