

**Table 1.** Statistical analysis of anticodon-dependent motifs of animal genomes

Genome <sup>a</sup>	Number of amino acids with anticodon-dependent upstream tRNA motif	Number of amino acids without anticodon-dependent upstream tRNA motif
<i>Homo sapiens</i> (human)	10	4
<i>Rattus norvegicus</i> (rat)	8	5
<i>Mus musculus</i> (mouse)	8	4
<i>Gallus gallus</i> (hen)	9	5
<i>Drosophila melanogaster</i>	5	7
<i>Anopheles gambiae</i>	5	7
<i>Caenorhabditis elegans</i>	8	5

<sup>a</sup>A detailed list of the motifs within the tRNA upstream sequences dependent on the anticodon is given in Supplementary Table S1. Note that amino acids decoded by tRNAs with one and the same anticodon are not included in the table.