**Table S1.** The ingredients and recommended doses of nutrient mixture

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| --- | --- | --- | --- | --- | --- |
| Sequence Number | Composition | Content(mg) | Dose proportion (%) | Recommended doses (mg/per kg/rat/day) | Recommended doses (mg/per kg/human/day) |
| 1 | Lysine | 600 | 6.6 | 99.75 | 9.98 |
| 2 | Methionine | 800 | 8.8 | 132.99 | 13.30 |
| 3 | Phenylalanine | 700 | 7.7 | 116.37 | 11.64 |
| 4 | Threonine | 300 | 3.3 | 49.87 | 4.99 |
| 5 | Tryptophan | 200 | 2.2 | 33.25 | 3.33 |
| 6 | Arginine | 760 | 8.38 | 126.65 | 12.67 |
| 7 | Histidine | 500 | 5.5 | 83.12 | 8.31 |
| 8 | Glycine | 300 | 3.3 | 49.87 | 4.99 |
| 9 | Aspartic Acid | 300 | 3.3 | 49.87 | 4.99 |
| 10 | Leucine | 300 | 3.3 | 49.87 | 4.99 |
| 11 | Isoleucine | 300 | 3.3 | 49.87 | 4.99 |
| 12 | Valine | 400 | 4.4 | 66.50 | 6.65 |
| 13 | Serine | 200 | 2.2 | 33.25 | 3.33 |
| 14 | Glutamine | 300 | 3.3 | 49.87 | 4.99 |
| 15 | Taurine | 200 | 2.2 | 33.25 | 3.33 |
| 16 | Orotic acid | 300 | 3.3 | 49.87 | 4.99 |
| 17 | Nucleotide | 400 | 4.4 | 66.50 | 6.65 |
| 18 | Vitamin A | 0.6 | 0.0066 | 0.10 | 0.01 |
| 19 | Vitamin D | 0.006 | 0.000066 | 0.001 | 0.0001 |
| 20 | Vitamin B2 | 2 | 0.022 | 0.33 | 0.033 |
| 21 | Vitamin B6 | 2 | 0.022 | 0.33 | 0.033 |
| 22 | Vitamin B12 | 0.004 | 0.000044 | 0.00066 | 0.000066 |
| 23 | Niacin | 12 | 0.13 | 1.96 | 0.20 |
| 24 | Folic acid | 0.9 | 0.0099 | 0.15 | 0.015 |
| 25 | Iron | 10 | 0.11 | 1.66 | 0.17 |
| 26 | Zinc | 10 | 0.11 | 1.66 | 0.17 |
| 27 | Manganese | 8 | 0.088 | 1.33 | 0.13 |
| 28 | Copper | 2 | 0.022 | 0.33 | 0.033 |
| 29 | Selenium | 0.1 | 0.001 | 0.015 | 0.0015 |
| 30 | Chromium | 0.02 | 0.0002 | 0.003 | 0.0003 |
| 31 | Potassium | 300 | 3.3 | 49.87 | 4.99 |
| 32 | Calcium | 300 | 3.3 | 49.87 | 4.99 |
| 33 | Magnesium | 200 | 2.2 | 33.25 | 3.33 |
| 34 | Inositol | 60 | 0.66 | 9.97 | 1.00 |
| 35 | Soybean phospholipid | 1200 | 13.23 | 199.94 | 19.99 |
| 36 | Vitamin C | 100 | 1.1 | 16.62 | 1.66 |