

Table S1. Percent DPPH and ABTS free radical scavenging activity of genotypes of *Z. nummularia* at various concentrations

| S.No | Genotypes | Concentration ($\mu\text{g/mL}$) | % DPPH Scavenging Mean \pm SEM | IC ₅₀ $\mu\text{g/ml}$ | % ABTS Scavenging Mean \pm SEM | IC ₅₀ $\mu\text{g/ml}$ |
|------|--------------|---------------------------------------|--|-----------------------------------|--|-----------------------------------|
| 1 | ZNP01 | 250 | 84.62 \pm 0.47 | | 77.38 \pm 1.41 | |
| | | 125 | 73.37 \pm 0.48 | 8.57 | 73.07 \pm 0.18 | 7.08 |
| | | 62.5 | 68.68 \pm 0.76 | | 68.68 \pm 0.76 | |
| | | 31.25 | 64.74 \pm 1.15 | | 63.74 \pm 1.15 | |
| | | 15.625 | 57.31 \pm 1.02 | | 55.21 \pm 0.76 | |
| | | 7.812 | 49.05 \pm 0.62 | | 50.03 \pm 1.10 | |
| 2 | ZNP02 | 250 | 83.00 \pm 0.51 | | 81.77 \pm 0.48 | |
| | | 125 | 78.96 \pm 1.22 | 7.79 | 76.59 \pm 0.59 | 7.93 |
| | | 62.5 | 73.70 \pm 0.35 | | 71.49 \pm 0.42 | |
| | | 31.25 | 67.03 \pm 1.04 | | 65.31 \pm 1.74 | |
| | | 15.625 | 56.21 \pm 1.13 | | 54.03 \pm 0.84 | |
| | | 7.812 | 49.56 \pm 0.92 | | 48.87 \pm 1.89 | |
| 3 | ZNP03 | 250 | 78.37 \pm 0.23 | | 73.93 \pm 0.96 | |
| | | 125 | 72.25 \pm 0.86 | 16.22 | 65.09 \pm 0.58 | 22.18 |
| | | 62.5 | 65.29 \pm 1.03 | | 61.43 \pm 1.39 | |
| | | 31.05 | 59.06 \pm 0.58 | | 55.48 \pm 0.76 | |
| | | 15.625 | 48.40 \pm 1.09 | | 46.21 \pm 0.52 | |
| | | | | | | |
| 4 | ZNP04 | 250 | 80.99 \pm 1.02 | | 78.97 \pm 0.48 | |
| | | 125 | 74.71 \pm 0.14 | 11.52 | 72.10 \pm 0.58 | 13.35 |
| | | 62.5 | 69.26 \pm 0.13 | | 66.16 \pm 1.43 | |
| | | 31.05 | 62.66 \pm 0.28 | | 61.96 \pm 0.29 | |
| | | 15.625 | 52.78 \pm 1.37 | | 51.87 \pm 0.18 | |
| | | 7.812 | 42.07 \pm 0.76 | | 43.15 \pm 0.21 | |

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|---|----------------------|--------|------------------|-------|------------------|-------|
| | | 250 | 75.24 ± 1.28 | | 71.28 ± 0.22 | |
| 5 | ZNP05 | 125 | 68.36 ± 0.83 | 21.48 | 66.07 ± 1.07 | 20.34 |
| | | 62.5 | 62.22 ± 0.16 | | 61.11 ± 1.98 | |
| | | 31.05 | 56.03 ± 0.53 | | 54.55 ± 0.32 | |
| | | 15.625 | 45.09 ± 1.13 | | 46.52 ± 0.64 | |
| | | | | | | |
| | | 250 | 80.86 ± 0.57 | | 79.70 ± 0.93 | |
| 6 | ZNP06 | 125 | 75.87 ± 1.05 | 7.79 | 74.94 ± 0.28 | 15.05 |
| | | 62.5 | 68.23 ± 0.11 | | 66.56 ± 0.38 | |
| | | 31.25 | 62.77 ± 0.28 | | 61.88 ± 0.44 | |
| | | 15.625 | 55.68 ± 1.02 | | 50.77 ± 0.57 | |
| | | 7.812 | 50.17 ± 0.71 | | 41.68 ± 0.28 | |
| | | | | | | |
| 7 | Ascorbic acid | 250 | 85.96 ± 0.29 | | 82.91 ± 0.46 | |
| | | 125 | 79.10 ± 0.57 | 10.86 | 76.74 ± 0.49 | 9.88 |
| | | 62.5 | 73.48 ± 0.76 | | 71.61 ± 0.81 | |
| | | 31.25 | 68.70 ± 0.47 | | 66.43 ± 0.73 | |
| | | 15.625 | 53.19 ± 1.09 | | 55.50 ± 0.60 | |
| | | 7.812 | 47.07 ± 0.98 | | 46.07 ± 0.66 | |

Table S2. AChE and BChE inhibitory potentials of different genotypes of *Z. nummularia* at various concentrations

| S.No | Genotypes | Concentration ($\mu\text{g/mL}$) | % AChE Scavenging Mean \pm SEM | AChE IC ₅₀ ($\mu\text{g/mL}$) | % BChE Scavenging Mean \pm SEM | BChE IC ₅₀ ($\mu\text{g/mL}$) |
|------|--------------|---------------------------------------|--|--|--|---|
| 1 | ZNP01 | 500 | 82.68 \pm 0.93 | | 79.57 \pm 0.60 | |
| | | 250 | 76.03 \pm 0.31 | 21.19 | 73.54 \pm 0.14 | 22.76 |
| | | 125 | 69.83 \pm 0.45 | | 66.69 \pm 0.07 | |
| | | 62.5 | 62.77 \pm 1.52 | | 61.55 \pm 0.53 | |
| | | 31.25 | 55.42 \pm 0.44 | | 52.15 \pm 1.36 | |
| | | 15.625 | 45.57 \pm 0.72 | | 46.42 \pm 1.08 | |
| 2 | ZNP02 | 500 | 74.78 \pm 0.38 | | 71.42 \pm 0.43 | |
| | | 250 | 67.55 \pm 0.34 | 20.52 | 64.77 \pm 1.52 | 24.54 |
| | | 125 | 62.83 \pm 0.29 | | 60.68 \pm 0.12 | |
| | | 62.5 | 57.57 \pm 1.43 | | 56.48 \pm 0.11 | |
| | | 31.25 | 53.12 \pm 0.40 | | 52.16 \pm 1.16 | |
| | | 15.625 | 46.12 \pm 0.62 | | 45.03 \pm 1.31 | |
| 3 | ZNP03 | 500 | 75.12 \pm 1.09 | | 76.54 \pm 0.18 | |
| | | 250 | 69.15 \pm 0.31 | 30.07 | 71.59 \pm 0.50 | 48.16 |
| | | 125 | 63.95 \pm 0.72 | | 64.54 \pm 1.35 | |
| | | 62.5 | 57.36 \pm 0.51 | | 59.21 \pm 0.34 | |
| | | 31.25 | 51.04 \pm 1.48 | | 45.88 \pm 0.28 | |
| | | | | | | |
| 4 | ZNP04 | 1000 | 84.55 \pm 1.55 | | 78.79 \pm 0.17 | |
| | | 500 | 76.52 \pm 0.73 | 23.68 | 72.48 \pm 0.78 | 33.13 |
| | | 250 | 69.16 \pm 0.55 | | 67.86 \pm 1.43 | |
| | | 125 | 62.12 \pm 0.34 | | 61.62 \pm 0.37 | |
| | | 62.5 | 56.99 \pm 0.31 | | 55.10 \pm 0.40 | |
| | | 31.25 | 52.22 \pm 2.76 | | 48.24 \pm 0.43 | |

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|---|--------------------|--------|--------------|-------|--------------|-------|
| | | 1000 | 85.37 ± 0.08 | 34.42 | 81.62 ± 0.79 | |
| 5 | ZNP05 | 500 | 79.65 ± 0.44 | | 75.27 ± 2.88 | 55.44 |
| | | 250 | 72.35 ± 1.42 | | 70.96 ± 0.09 | |
| | | 125 | 65.21 ± 0.39 | | 66.76 ± 0.80 | |
| | | 62.5 | 59.66 ± 0.78 | | 57.40 ± 0.04 | |
| | | 31.25 | 48.54 ± 1.23 | | 43.69 ± 1.16 | |
| | | 1000 | 81.24 ± 0.15 | | 76.66 ± 1.50 | |
| 6 | ZNP06 | 500 | 75.74 ± 1.18 | 35.01 | 69.98 ± 0.44 | 38.82 |
| | | 250 | 71.55 ± 0.68 | | 63.54 ± 1.35 | |
| | | 125 | 65.89 ± 0.51 | | 56.36 ± 0.32 | |
| | | 62.5 | 58.26 ± 0.34 | | 51.01 ± 1.29 | |
| | | 31.25 | 49.78 ± 1.47 | | 46.74 ± 0.27 | |
| | | 500 | 85.74 ± 0.27 | | 79.80 ± 0.36 | |
| 7 | Galantamine | 250 | 79.68 ± 0.18 | 12.69 | 73.65 ± 0.28 | 20.76 |
| | | 125 | 73.49 ± 0.20 | | 65.42 ± 0.79 | |
| | | 62.5 | 67.66 ± 0.35 | | 61.68 ± 0.07 | |
| | | 31.25 | 61.42 ± 0.79 | | 55.69 ± 0.12 | |
| | | 15.625 | 53.70 ± 0.25 | | 48.42 ± 0.31 | |
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