**Table 2** Total phenolic content and antioxidant activity content in crude diatom beta-glucan extracted samples, *C. muelleri*

|  |  |  |  |
| --- | --- | --- | --- |
| **Extract analysis**  | **T1** | **T2** | **T3** |
| Total phenolic (μg/mg of GAE) | 14.91± 0.97b | 4.44±0.11a | 4.16±0.17a |
| ABTS scavenging of 2 mg/ml extract | 89.21±1.71b | 10.66±0.38a | 94.59±0.04c |
| DPPH scavenging of 10 mg/ml extract | 22.47±1.23a | 23.34±0.67a | 65.33±2.90b |
| Reducing power (mg ascorbic acid) | 49.44±4.49a | 47.61±5.45a | 53.23±6.61a |

The difference letters mean statistically significant at 95% confident interval (*p* < 0.05)

**Row Data**

|  |  |  |  |
| --- | --- | --- | --- |
| **Total phenolic (μg/mg of GAE)** | **T1** | **T2** | **T3** |
| **R1** | 14.71 | 4.43 | 4.31 |
| **R2** | 14.06 | 4.34 | 4.21 |
| **R3** | 15.97 | 4.55 | 3.97 |
| **Average** | 14.91 | 4.44 | 4.16 |
| **SD** | 0.97 | 0.11 | 0.17 |

|  |  |  |  |
| --- | --- | --- | --- |
| **ABTS scavenging of 2 mg/ml extract** | **T1** | **T2** | **T3** |
| **R1** | 88.63 | 11.07 | 94.62 |
| **R2** | 87.87 | 10.61 | 94.54 |
| **R3** | 91.13 | 10.31 | 94.62 |
| **average** | 89.21 | 10.66 | 94.59 |
| **SD** | 1.71 | 0.38 | 0.04 |

|  |  |  |  |
| --- | --- | --- | --- |
| **DPPH scavenging of 10 mg/ml extract** | **T1** | **T2** | **T3** |
| **R1** | 23.10 | 22.77 | 66.26 |
| **R2** | 23.26 | 23.18 | 62.08 |
| **R3** | 21.05 | 24.08 | 67.65 |
| **Average** | 22.47 | 23.34 | 65.33 |
| **SD** | 1.23 | 0.67 | 2.90 |

|  |  |  |  |
| --- | --- | --- | --- |
| **Reducing power (mg ascorbic acid)** | **T1** | **T2** | **T3** |
| **R1** | 54.29 | 51.27 | 57.31 |
| **R2** | 48.61 | 50.21 | 45.60 |
| **R3** | 45.42 | 41.34 | 56.77 |
| **Average** | 49.44 | 47.61 | 53.23 |
| **SD** | 4.49 | 5.45 | 6.61 |