

Supplementary data sheet

Table S1: Independent process variables with experimental ranges and levels for heat reflux extraction of URADP.

| Input variables | Variable range and levels (coded) | | | | | | |
|-----------------------|-----------------------------------|----------------|------------|----|------|-----|------------|
| | unit | Code | - α | -1 | 0 | +1 | + α |
| Ethanol concentration | % | X ₁ | 0 | 25 | 50 | 75 | 100 |
| Time | min | X ₂ | 15 | 45 | 82.5 | 120 | 150 |
| Temperature | °C | X ₃ | 40 | 50 | 60 | 70 | 80 |

Table S2: Pearson correlation of the TPC, TFC, antioxidants and various enzymes inhibition activities.

| | TPC | TFC | DPPH | ABTS | Tyr | Glu |
|------|--------|--------|--------|--------|--------|-------|
| TFC | 0.943 | | | | | |
| | 0.001 | | | | | |
| DPPH | -0.759 | -0.905 | | | | |
| | 0.048 | 0.005 | | | | |
| ABTS | -0.488 | -0.615 | 0.752 | | | |
| | 0.266 | 0.142 | 0.051 | | | |
| Tyr | -0.709 | -0.837 | 0.815 | 0.734 | | |
| | 0.075 | 0.019 | 0.025 | 0.060 | | |
| Glu | -0.702 | -0.545 | 0.385 | 0.342 | 0.135 | |
| | 0.079 | 0.206 | 0.394 | 0.452 | 0.774 | |
| Ela | 0.096 | 0.321 | -0.485 | -0.717 | -0.455 | 0.062 |
| | 0.839 | 0.483 | 0.270 | 0.070 | 0.304 | 0.895 |

Cell Contents

Pearson correlation,

P-Value