

ABTS radical scavenging capacity measurement

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Abstract

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Protocol

Step 1.

Extractions were dissolved in dimethyl sulfoxide (DMSO) to give a stock solution (10 mg/mL) for antioxidant assays.

Step 2.

ABTS radical solution was prepared by gently mixing 10 mL of 7 mM ABTS solution and 10 mL of 2.45 mM potassium persulfate solution. This was allowed to stand in the dark at room temperature for 12–16 h. The ABTS radical solution was adjusted with ethanol to an absorbance of 0.7 (± 0.02) at 734nm before usage

Step 3.

The extracts were prepared by two times dilution method in 96-well microtitre plates.

Step 4.

Different concentration extractions (10 μ L) or ethanol were mixed to 195 μ L of ABTS radical solution in 96-well microtitre plates.

Step 5.

The reaction mixtures were incubated at room temperature for 30 min in the dark

Step 6.

Absorbance was measured at 734nm by Microplate Reader.

Step 7.

The free radical scavenging activity was calculated as follows: %RSA = $[(A_{\text{blank}} - A_{\text{sample}}) / A_{\text{blank}}] \times 100\%$ Where: A_{blank} was the absorbance of without samples, and A_{sample} was the absorbance of the test sample. The values are expressed as the means of triplicate analyses.