

**DETERMINATION OF TOTAL PHENOLIC CONTENT IN
BERRY JUICES**

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APPROVAL SHEET

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ABSTRACT

DETERMINATION OF TOTAL PHENOLIC CONTENT IN BERRY JUICES

Nowadays, people are very conscious with healthy diet and lifestyle. Berry fruits are significantly rich of total phenolic content which promote antioxidant activity. There are numerous sources of berry's product in the market. However, the purenesses of the berry's product in the current market are yet unclear. This project is conducted to determine the total phenolic content (TPC) in commercial berry juice in order to confirm the authenticity of the berry juices. Folin-Ciocalteu method is used to determine the TPC in three different berry juices via UV-Vis spectrometer. Gallic acid is used as the standard in obtaining the calibration curve in order to determine the total phenolic content. From this research it shows that berry juice A sample has the highest concentration of TPC which is $59.8703 \text{ mg GAE/l} \pm 3.8889$. Method validation technique is also conducted under the parameter of linearity, limit of detection, limit of quantification and precision. From the calibration curve, the curve coefficient obtained is 0.9991 which indicate linear correlation. The value of LOD and LOQ is $2.0057 \text{ mg GAE/l} \pm 0.338$ and $2.4889 \text{ mg GAE/l} \pm 0.201$. Meanwhile, the percentage of precision of the method is 96.66% which is in the acceptable range.