

## A comparative study of grape seed oil for extraction method (using supercritical carbon dioxide and conventional method)

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### Abstract

There were many oil extraction methods. Typical methods were pressing and using solvent. Studies were made to compare quality of oil from grape seed using supercritical carbon dioxide and conventional methods.

Grape seed oil had  $\alpha$ -tocopherol and phytosterol. The  $\alpha$ -tocopherol has a function of anti-oxidation. And the phytosterol has a structural affinity with cholesterol, so it effect to reduce blood cholesterol. Not only grape seed oil has bioactive compounds but also it contains high quality fatty acids. Grape seed oil was formed from lioleic-oleic acid. These fatty acid were unsaturated and made from long carbon chain over 18.

The condition using supercritical fluid extraction was did at 400 bar and 50 °C. Pressing method was used extruder type extractor. A soxhlet equipment was used by solvent method. When hexane was used.

As a result, method of using supercritical fluid was the most effective to contain both side of  $\alpha$ -tocopherol and phytosterol. Using solvent and pressing methods came out a similar result.

### Reference

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