



---

# Mustard Sprouts

---

The plants from the mustard family have a compound called glucosinolates. Glucosinolates are secondary metabolites (amino acid derived), which have been studied and reported to have instances where there are different pharmacological properties. Some of the properties include antifungal, antibacterial, bioherbicidal, antioxidant, antimutagenic, anticancer, and anti-inflammatory to name a few (1)(2).

Specifically, the sinigrin compound is much more abundant in *Brassica nigra* (mustard seeds). Sinigrin has an important role in lowering the risks of cancer and DNA damage or mutations due to carcinogenic substances. Sinigrin has also been used in other nutritional supplements thanks to its great benefits for the preventions of other diseases. It (sinigrin) is also found in other vegetables such as brussels sprouts and broccoli. While other vegetables contain sinigrin, it is much more concentrated when powdered. Sprouting it boosts its nutritional values on top of it being dried as it is expected to have higher amounts of glucoraphanin in comparison to its non-sprouted counterpart.

It is also important to note that people who increase their intake of any brassica vegetables, or any that may have sinigrin in general, have increased protection against cancer. The glutathione S-transferase is induced in the body when consumed (2). After tests and studies, sinigrin held high results for a strong anticancer activity.



## References:

1. Augustine, R.; Bisht, N. C. Biofortification of Oilseed Brassica Juncea with the Anti-Cancer Compound Glucoraphanin by Suppressing GSL-ALK Gene Family. *Scientific Reports* 2015, 5 (1).
2. Mazumder, A.; Dwivedi, A.; du Plessis, J. Sinigrin and Its Therapeutic Benefits. *Molecules* 2016, 21 (4), 416.