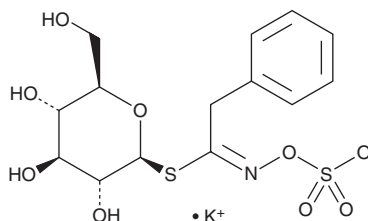


# PRODUCT INFORMATION

## Glucotropaeolin (potassium salt)

Item No. 21463

**CAS Registry No.:** 5115-71-9  
**Formal Name:** 1-[N-(sulfooxy)benzeneethanimidate] 1-thio- $\beta$ -D-glucopyranose, monopotassium salt  
**Synonym:** Benzyl Glucosinolate  
**MF:**  $C_{14}H_{18}NO_9S_2 \cdot K$   
**FW:** 447.5  
**Purity:**  $\geq 98\%$   
**Supplied as:** A solid  
**Storage:**  $-20^\circ\text{C}$   
**Stability:**  $\geq 4$  years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

### Laboratory Procedures

Glucotropaeolin (potassium salt) is supplied as a solid. A stock solution may be made by dissolving the glucotropaeolin (potassium salt) in the solvent of choice, which should be purged with an inert gas. Glucotropaeolin (potassium salt) is soluble in the organic solvent DMSO at a concentration of approximately 1 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of glucotropaeolin (potassium salt) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of glucotropaeolin (potassium salt) in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Glucotropaeolin is a glucosinolate that has been found in cruciferous plants such as *L. sativum*.<sup>1</sup> It has antiprotozoal activity against HM1-IMSS *E. histolytica*, reducing the number of trophozoites with an  $IC_{50}$  value of 20.4  $\mu\text{g/ml}$ .<sup>2</sup> Dietary administration of glucotropaeolin (1,000 mg/kg), unlike administration of whole glucosinolate extract, does not induce the activity of anticarcinogenic mixed-function oxidases in rat large intestines.<sup>3</sup> Glucotropaeolin is inactive against the fungi *F. culmorum* and does not have antitumor activity, however, it is metabolized into isothiocyanate products that have these activities.<sup>1,4</sup>

### References

1. Manici, L.M., Lazzeri, L., and Palmieri, S. *In vitro* fungitoxic activity of some glucosinolates and their enzyme-derived products toward plant pathogenic fungi. *J. Agric. Food Chem.* **45**(7), 2768-2773 (1997).
2. Calzada, F., Barbosa, E., and Cedillo-Rivera, R. Antiamoebic activity of benzyl glucosinolate from *Lepidium virginicum*. *Phytother. Res.* **17**(6), 618-619 (2003).
3. McCanell, R., McLean, A.E., Hanley, A.B., et al. The effect of feeding brassica vegetables and intact glucosinolates on mixed-function-oxidase activity in the livers and intestines of rats. *Food Chem. Toxicol.* **27**(5), 289-293 (1989).
4. Cho, H.J., Lim, D.Y., Kwon, G.T., et al. Benzyl isothiocyanate inhibits prostate cancer development in the transgenic adenocarcinoma mouse prostate (TRAMP) model, which is associated with the induction of cell cycle G1 arrest. *Int. J. Mol. Sci.* **17**(2), 264 (2016).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

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