

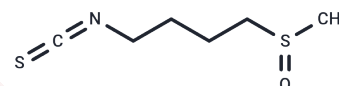
## (R)-Sulforaphane

## Chemical Properties

CAS No. : 142825-10-3

Formula: C<sub>6</sub>H<sub>11</sub>NOS<sub>2</sub>

Molecular Weight: 177.29



Store at low temperature, Keep away from direct sunlight, Store under nitrogen

Storage: Pure form: -20°C for 3 years | In solvent: -80°C for 1 year

Actual storage temperature shall be subject to the COA.

## Biological Description

Description	(R)-Sulforaphane (L-Sulforaphane) is a potent inducer of the Keap1/Nrf2/ARE pathway.
Targets(IC50)	Bcl-2 Family, NF-κB, Reactive Oxygen Species, Caspase, Nrf2, ROS

## Solubility Information

Solubility	DMSO: 16 mg/mL (90.25 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (11.28 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	5.6405 mL	28.2024 mL	56.4048 mL
5 mM	1.1281 mL	5.6405 mL	11.281 mL
10 mM	0.564 mL	2.8202 mL	5.6405 mL
50 mM	0.1128 mL	0.564 mL	1.1281 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

### Reference

De Nicola GR, et al. Novel gram-scale production of enantiopure R-sulforaphane from Tuscan black kale seeds. *Molecules*. 2014 May 27;19(6):6975-86.

Sun R, Huang H, Wang Z, et al. Computer-driven Evolution of Myrosinase from the Cabbage Aphid for Efficient Production of (R)-Sulforaphane. *Journal of Agricultural and Food Chemistry*. 2024

Abdull Razis AF, et al. The natural chemopreventive phytochemical R-sulforaphane is a far more potent inducer of the carcinogen-detoxifying enzyme systems in rat liver and lung than the S-isomer. *Int J Cancer*. 2011 Jun 15;128(12):2775-82.

Guo C, Yin Y, Ma Z, et al. Astilbin exerts a neuroprotective effect by upregulating the signaling of nuclear NF-E2-related factor 2 in vitro. *Heliyon*. 2024

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