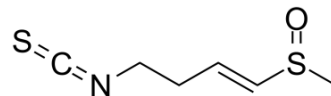


## Sulforaphene

<b>Cat. No.:</b>	HY-N2450
<b>CAS No.:</b>	592-95-0
<b>Molecular Formula:</b>	C <sub>6</sub> H <sub>9</sub> NOS <sub>2</sub>
<b>Molecular Weight:</b>	175.27
<b>Target:</b>	Apoptosis; EGFR; ERK; NF-κB
<b>Pathway:</b>	Apoptosis; JAK/STAT Signaling; Protein Tyrosine Kinase/RTK; MAPK/ERK Pathway; Stem Cell/Wnt; NF-κB
<b>Storage:</b>	4°C, protect from light * In solvent : -80°C, 6 months; -20°C, 1 month (protect from light)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 100 mg/mL (570.55 mM; Need ultrasonic)																	
	<table border="1"> <thead> <tr> <th rowspan="2">Solvent Concentration</th> <th rowspan="2">Mass</th> <th>1 mg</th> <th>5 mg</th> <th>10 mg</th> </tr> </thead> <tbody> <tr> <td>1 mM</td> <td>5.7055 mL</td> <td>28.5274 mL</td> <td>57.0548 mL</td> </tr> <tr> <td>5 mM</td> <td>1.1411 mL</td> <td>5.7055 mL</td> <td>11.4110 mL</td> </tr> <tr> <td>10 mM</td> <td>0.5705 mL</td> <td>2.8527 mL</td> <td>5.7055 mL</td> </tr> </tbody> </table>	Solvent Concentration	Mass	1 mg	5 mg	10 mg	1 mM	5.7055 mL	28.5274 mL	57.0548 mL	5 mM	1.1411 mL	5.7055 mL	11.4110 mL	10 mM	0.5705 mL	2.8527 mL	5.7055 mL
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	Please refer to the solubility information to select the appropriate solvent.																	
<b>In Vivo</b>	<ol style="list-style-type: none"> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 40% PEG300 &gt;&gt; 5% Tween-80 &gt;&gt; 45% saline Solubility: ≥ 2.5 mg/mL (14.26 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (14.26 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil Solubility: ≥ 2.5 mg/mL (14.26 mM); Clear solution</li> </ol>																	

### BIOLOGICAL ACTIVITY

<b>Description</b>	Sulforaphene, isolated from radish seeds, exhibits an ED <sub>50</sub> against velvetleaf seedlings approximately 2 x 10 <sup>-4</sup> M. Sulforaphene promotes cancer cells apoptosis and inhibits migration via inhibiting EGFR, p-ERK1/2, NF-κB and other signals <sup>[1][2][3][4]</sup> .
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### REFERENCES

[1]. Kuang P, et al. Separation and purification of sulforaphene from radish seeds using macroporous resin and preparative high-performance liquid chromatography. Food

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Chem. 2013 Jan 15;136(2):342-7.

[2]. Anita M. Brinker, et al. Herbicidal activity of sulforaphene from stock (*Matthiola incana*). *Journal of Chemical Ecology*. Vol. 19. No. 10, 1993.

[3]. Mondal A, et al. Sulforaphene promotes Bax/Bcl2, MAPK-dependent human gastric cancer AGS cells apoptosis and inhibits migration via EGFR, p-ERK1/2 down-regulation. *General Physiology and Biophysics*, 27 Nov 2015, 35(1):25-34.

[4]. Ren K, et al. Sulforaphene enhances radiosensitivity of hepatocellular carcinoma through suppression of the NF- $\kappa$ B pathway. *J Biochem Mol Toxicol*. 2017 Aug;31(8).

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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