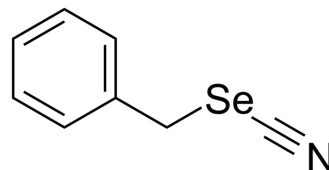


## Benzyl selenocyanate

|                           |  |
|---------------------------|--|
| <b>Cat. No.:</b>          | HY-131991  |
| <b>CAS No.:</b>           | 4671-93-6  |
| <b>Molecular Formula:</b> | C <sub>8</sub> H <sub>7</sub> NSe  |
| <b>Molecular Weight:</b>  | 196.11   |
| <b>Target:</b>            | DNA Methyltransferase  |
| <b>Pathway:</b>           | Epigenetics  |
| <b>Storage:</b>           | 4°C, sealed storage, away from moisture<br>* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture) |



### SOLVENT & SOLUBILITY

|   |   |                          |           |            |            |
|---|---|--------------------------|-----------|------------|------------|
| <b>In Vitro</b>   | DMSO : 100 mg/mL (509.92 mM; Need ultrasonic)   |                          |           |            |            |
|   |   | Solvent<br>Concentration | Mass      |            |            |
|   | <b>Preparing Stock Solutions</b>  |                          | 1 mg      | 5 mg       | 10 mg      |
|   |   | 1 mM                     | 5.0992 mL | 25.4959 mL | 50.9918 mL |
|   |   | 5 mM                     | 1.0198 mL | 5.0992 mL  | 10.1984 mL |
|   | 10 mM   | 0.5099 mL                | 2.5496 mL | 5.0992 mL  |            |
| 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<br/>Solubility: ≥ 2.5 mg/mL (12.75 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% (20% SBE-β-CD in saline)<br/>Solubility: ≥ 2.5 mg/mL (12.75 mM); Clear solution</li> <li>Add each solvent one by one: 10% DMSO &gt;&gt; 90% corn oil<br/>Solubility: ≥ 2.5 mg/mL (12.75 mM); Clear solution</li> </ol> |                          |           |            |            |

### BIOLOGICAL ACTIVITY

|                                     |  |
|-------------------------------------|--|
| <b>Description</b>                  | Benzyl selenocyanate is a chemopreventive agent for various chemically induced tumors in animal models at both the initiation and postinitiation stages. Benzyl selenocyanate is an inhibitor of DNA (cytosine-5)-methyltransferase (Mtase), with an with an IC <sub>50</sub> of 8.4 μM <sup>[1]</sup> . |
| <b>IC<sub>50</sub> &amp; Target</b> | IC <sub>50</sub> : 8.4 μM (Mtase) <sup>[1]</sup>   |
| <b>In Vitro</b>                     | Benzyl selenocyanate inhibits the activity of DNA (cytosine-5)-methyltransferase (Mtase) in a concentration-dependent manner <sup>[1]</sup> .<br>MCE has not independently confirmed the accuracy of these methods. They are for reference only.   |

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## REFERENCES

[1]. E S Fiala, et al. Inhibition of DNA cytosine methyltransferase by chemopreventive selenium compounds, determined by an improved assay for DNA cytosine methyltransferase and DNA cytosine methylation. Carcinogenesis. 1998 Apr;19(4):597-604.

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

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