

BSP16

## Chemical Properties

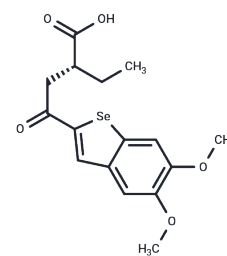
CAS No. : 2727249-47-8

Formula: C<sub>16</sub>H<sub>18</sub>O<sub>5</sub>Se

Molecular Weight: 369.27

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

Actual storage temperature shall be subject to the COA.



## Biological Description

Description	BSP16 is a highly potent, orally active stimulator of the interferon gene (STING) agonist that selectively activates the STING pathway, induces the production of type I interferons (IFNs) and pro-inflammatory cytokines, and elicits a systemic antitumor immune response. BSP16 is intended for use in cancer research.
Targets(IC50)	Others,STING
In vitro	<p>Methods: ISG-THP1 cells and ISG-RAW264.7 mouse macrophages were treated with BSP16 (0-30 μM) for 0-12 hours, and the mRNA expression levels of IFNβ, CXCL10, and IL-6 were detected by qPCR.</p> <p>Results: BSP16 induced IFNβ, CXCL10, and IL-6 expression in a concentration- and time-dependent manner; IFNβ reached its peak at 1 hour, while CXCL10 and IL-6 reached their peaks at 6 hours. [1]</p>
In vivo	<p>Methods: To investigate the antitumor efficacy of BSP16, female BALB/c mice were subcutaneously inoculated with CT26 cells and administered BSP16 (30 mg/kg) via oral gavage once every 3 days for 21 days.</p> <p>Results: In the BSP16 (30 mg/kg) group, tumors completely regressed and there was no significant decrease in body weight. [1]</p> <p>Methods: To investigate the effects of BSP16 on immune cell activation, MC38 tumor-bearing mice were administered BSP16 (30 mg/kg) via oral gavage every 3 days for 21 days, and their spleens were harvested 2 days after the end of treatment.</p> <p>Results: BSP16 significantly increased the proportions of CD69<sup>+</sup> CD8<sup>+</sup> T cells and CD69<sup>+</sup> NK cells in the spleen. [1]</p>

### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.708 mL	13.5402 mL	27.0805 mL
5 mM	0.5416 mL	2.708 mL	5.4161 mL
10 mM	0.2708 mL	1.354 mL	2.708 mL
50 mM	0.0542 mL	0.2708 mL	0.5416 mL

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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

Feng X, Pan L, Qian Z, et al. Discovery of Selenium-Containing STING Agonists as Orally Available Antitumor Agents. *J Med Chem.* 2022;65(22):15048-15065.

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