

LAS17

## Chemical Properties

CAS No. : 2362527-67-9

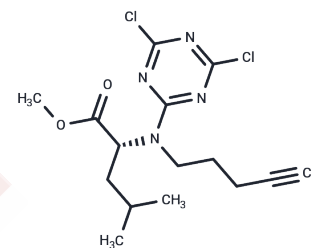
Formula: C<sub>15</sub>H<sub>20</sub>Cl<sub>2</sub>N<sub>4</sub>O<sub>2</sub>

Molecular Weight: 359.25

Store at low temperature

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   | LAS17 is a selective and highly effective inhibitor of glutathione S-transferase Pi (GSTP1), which inhibits GSTP1 activity in vitro in a concentration-dependent manner. LAS17 has anti-tumor activity and inhibits breast cancer cell growth.  |
| Targets(IC50) | Glutathione Peroxidase,GST  |
| In vitro      | <p><b>METHODS:</b> To determine whether LAS17 (0-100 μM) inhibits GSTP1 activity, an in vitro activity assay was performed, monitoring the transfer of glutathione (GSH) to 1-bromo-2,4-dinitrobenzene (BDNB) spectrophotometrically.</p> <p><b>RESULTS:</b>LAS17 inhibited GSTP1 activity in vitro in a concentration-dependent manner. [1]</p> <p><b>METHODS:</b> 231MFP cells were treated with LAS17 (10 μM, 48 hours) and their serum-free cell viability was measured.</p> <p><b>RESULTS:</b>LAS17 treatment reduced the level of phosphorylated S6 downstream of mTOR and S6 kinase in 231MFP breast cancer cells. [2]</p> |
| In vivo       | <p><b>METHODS:</b> LAS17 (20 mg/kg, intraperitoneal injection, once a day) was used to treat 231MFP tumor xenografted mice in immunodeficient mice and the tumor growth was observed.</p> <p><b>RESULTS:</b>LAS17 significantly inhibited the growth of 231MFP breast tumor xenografts in immunodeficient mice, had no cytotoxicity, and had no effect on the body weight of mice. [2]</p>  |

## Solubility Information

|            |  |
|------------|--|
| Solubility | DMSO: 80 mg/mL (222.69 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
|------------|--|

### Preparing Stock Solutions

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|       | 1mg       | 5mg        | 10mg       |
|-------|-----------|------------|------------|
| 1 mM  | 2.7836 mL | 13.9179 mL | 27.8358 mL |
| 5 mM  | 0.5567 mL | 2.7836 mL  | 5.5672 mL  |
| 10 mM | 0.2784 mL | 1.3918 mL  | 2.7836 mL  |
| 50 mM | 0.0557 mL | 0.2784 mL  | 0.5567 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

L A Crawford, et al. A tyrosine-reactive irreversible inhibitor for glutathione S-transferase Pi (GSTP1). Mol Biosyst. 2016 May 24;12(6):1768-71.

Sharon M Louie, et al. GSTP1 Is a Driver of Triple-Negative Breast Cancer Cell Metabolism and Pathogenicity. Cell Chem Biol. 2016 May 19;23(5):567-578.

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