

SU0268

## Chemical Properties

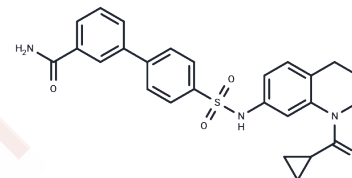
CAS No. : 2210228-45-6

Formula: C<sub>26</sub>H<sub>25</sub>N<sub>3</sub>O<sub>4</sub>S

Molecular Weight: 475.56

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	SU0268 is a potent and specific 8-Oxoguanine DNA glycosylase 1 (OGG1) inhibitor that regulates inflammatory responses during <i>Pseudomonas aeruginosa</i> infection.
Targets(IC50)	Others,Transferase
In vitro	SU0268/IACS-4759 (5-20 μM, 48h) co-treated cells are more viable than the correspondingly-treated IACS-4759- or SU0268-treated cells[1]. MTH1-depleted cells are less sensitive to the OGG1-specific inhibitor, SU0268 (5-10 μM), compared to their control shGFP counterparts[1]. SU0268 does not bind DNA and thus interacts with OGG1 specifically rather than its substrate[2]. SU0268 induces the release of type I IFN by the mitochondrial DNA-cGAS-STING-IRF3-IFN-β axis, which decreases bacterial loads and halts disease progression[3].
In vivo	In MH-S cells and C57BL/6N mice, SU0268 pretreatment (10 mg/kg, intranasally treated) increases survival rates compared with controls without SU0268 pretreatment [3].

## Solubility Information

Solubility	DMSO: 100 mg/mL (210.28 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: 4 mg/mL (8.41 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

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	<b>1mg</b>	<b>5mg</b>	<b>10mg</b>
1 mM	2.1028 mL	10.5139 mL	21.0278 mL
5 mM	0.4206 mL	2.1028 mL	4.2056 mL
10 mM	0.2103 mL	1.0514 mL	2.1028 mL
50 mM	0.0421 mL	0.2103 mL	0.4206 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

Ling Zhang, et al. OGG1 co-inhibition antagonizes the tumor-inhibitory effects of targeting MTH1. *Redox Biol.* 2021 Apr;40:101848.

Yu-Ki Tahara, et al. Potent and Selective Inhibitors of 8-Oxoguanine DNA Glycosylase. *J Am Chem Soc.* 2018 Feb 14; 140(6):2105-2114.

Shugang Qin, et al. Small-Molecule Inhibitor of 8-Oxoguanine DNA Glycosylase 1 Regulates Inflammatory Responses during *Pseudomonas aeruginosa* Infection. *J Immunol.* 2020 Oct 15;205(8):2231-2242.

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