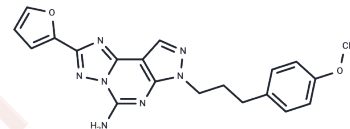


SCH442416

## Chemical Properties

CAS No. : 316173-57-6  
Formula: C<sub>20</sub>H<sub>19</sub>N<sub>7</sub>O<sub>2</sub>  
Molecular Weight: 389.41  
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	SCH442416 (SCH 442416) is an selective antagonist of adenosine A2A receptor. SCH442416 binds to human and rat A2A receptors with high affinity (K <sub>i</sub> values are 0.048 and 0.5 nM respectively).
Targets(IC50)	Adenosine Receptor
In vitro	The A2A receptor antagonist (SCH 442416) could increase mRNA expression of the Kir 2.1 and Kir 4.1 channels in Müller cells to protect the retinal neurons in vitro under hypoxic conditions[1].

## Solubility Information

Solubility	DMSO: 60 mg/mL (154.08 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: 1 mg/mL (2.57 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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	1mg	5mg	10mg
1 mM	2.568 mL	12.8399 mL	25.6799 mL
5 mM	0.5136 mL	2.568 mL	5.136 mL
10 mM	0.2568 mL	1.284 mL	2.568 mL
50 mM	0.0514 mL	0.2568 mL	0.5136 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

Kang X , Yu J , Wei Y , et al. The Effect of A 2A Receptor Antagonist (SCH 442416) on the mRNA Expression of Kir 2.1 and Kir 4.1 Channels in Rat Retinal Müller Cells Under Hypoxic Conditions in Vitro[J]. Advances in Clinical and Experimental Medicine, 2013, 22(6):825-829.

Jun Yu , Yan Yan , Yiye Chen,et al. A 2A R Antagonists Upregulate Expression of GS and GLAST in Rat Hypoxia Model.Biomed Res Int. 2020 Oct 26;2020:2054293. doi: 10.1155/2020/2054293. eCollection 2020.

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