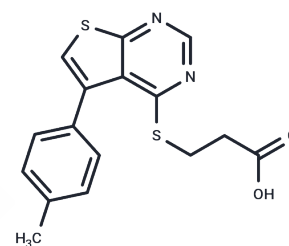


TTP 22

## Chemical Properties

CAS No. : 329907-28-0  
 Formula: C<sub>16</sub>H<sub>14</sub>N<sub>2</sub>O<sub>2</sub>S<sub>2</sub>  
 Molecular Weight: 330.42  
 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	TTP 22 is a high affinity, ATP-competitive casein kinase 2 (CK2) inhibitor with IC <sub>50</sub> /K <sub>i</sub> of 0.1 μM/40 nM, and shows selectivity >250-fold for CK2 over JNK3, ROCK1, and MET (IC <sub>50</sub> > 10 μM).
Targets (IC <sub>50</sub> )	Casein Kinase
Kinase Assay	PI3K biochemical assay (ATP depletion assay): BKM120 is dissolved in DMSO and directly distributed into a black 384-well plate at 1.25 μL per well. To start the reaction, 25 μL of 10 nM PI3 kinase and 5 μg/mL 1-α-phosphatidylinositol (PI) in assay buffer (10 mM Tris pH 7.5, 5 mM MgCl <sub>2</sub> , 20 mM NaCl, 1 mM DTT and 0.05% CHAPS) are added into each well followed by 25 μL of 2 μM ATP in assay buffer. The reaction is performed until approx 50% of the ATP is depleted and then stopped by the addition of 25 μL of KinaseGlo solution. The stopped reaction is incubated for 5 minutes and the remaining ATP is then detected via luminescence.

## Solubility Information

Solubility	DMSO: 50 mg/mL (151.32 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: 2 mg/mL (6.05 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	3.0265 mL	15.1323 mL	30.2645 mL
5 mM	0.6053 mL	3.0265 mL	6.0529 mL
10 mM	0.3026 mL	1.5132 mL	3.0265 mL
50 mM	0.0605 mL	0.3026 mL	0.6053 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

Golub AG, et al. Eur J Med Chem. 2011 Mar;46(3): 870-6.

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