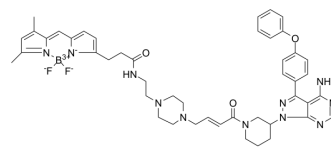


## PCI-33380

Cat. No.:	HY-100335		
CAS No.:	1022899-36-0		
Molecular Formula:	C <sub>46</sub> H <sub>52</sub> BF <sub>2</sub> N <sub>11</sub> O <sub>3</sub>		
Molecular Weight:	855.78		
Target:	Btk		
Pathway:	Protein Tyrosine Kinase/RTK		
Storage:	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

#### In Vitro

DMSO : ≥ 50 mg/mL (58.43 mM)  
 \* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.1685 mL	5.8426 mL	11.6852 mL
	5 mM	0.2337 mL	1.1685 mL	2.3370 mL
	10 mM	0.1169 mL	0.5843 mL	1.1685 mL

Please refer to the solubility information to select the appropriate solvent.

#### In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
 Solubility: ≥ 2.5 mg/mL (2.92 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
 Solubility: ≥ 2.5 mg/mL (2.92 mM); Clear solution

### BIOLOGICAL ACTIVITY

#### Description

PCI-33380 is an irreversible and selective Bruton's Tyrosine Kinase (BTK) inhibitor (fluorescent probe).

#### IC<sub>50</sub> & Target

BTK<sup>[1][2]</sup>.

#### In Vitro

PCI-33380 bound to Btk could be detected by denaturing gel electrophoresis and fluorescent gel scanning<sup>[2]</sup>.  
 MCE has not independently confirmed the accuracy of these methods. They are for reference only.  
 Immunofluorescence<sup>[2]</sup>

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Cell Line:	Human B cells.
Concentration:	2 $\mu$ M.
Incubation Time:	1 h.
Result:	Found that 10 nM of PCI-32765 was sufficient to fully occupy the active site of Btk in primary B cells in culture by using the fluorescently tagged derivative PCI-33380.

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## REFERENCES

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- [1]. Zuo Y, et al. A novel 2,5-diaminopyrimidine-based affinity probe for Bruton's tyrosine kinase. *Sci Rep.* 2015 Nov 4;5:16136.
- [2]. Honigberg LA, et al. The Bruton tyrosine kinase inhibitor PCI-32765 blocks B-cell activation and is efficacious in models of autoimmune disease and B-cell malignancy. *Proc Natl Acad Sci U S A.* 2010 Jul 20;107(29):13075-80.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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