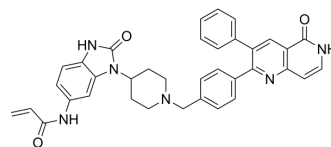


## Borussertib

<b>Cat. No.:</b>	HY-122913		
<b>CAS No.:</b>	1800070-77-2		
<b>Molecular Formula:</b>	C <sub>36</sub> H <sub>32</sub> N <sub>6</sub> O <sub>3</sub>		
<b>Molecular Weight:</b>	596.68		
<b>Target:</b>	Akt		
<b>Pathway:</b>	PI3K/Akt/mTOR		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	2 years
		-20°C	1 year



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	DMSO : 25 mg/mL (41.90 mM; Need ultrasonic)			
		Solvent Concentration	Mass	
			1 mg	5 mg
			10 mg	
<b>Preparing Stock Solutions</b>	<b>1 mM</b>	1.6759 mL	8.3797 mL	16.7594 mL
	<b>5 mM</b>	0.3352 mL	1.6759 mL	3.3519 mL
	<b>10 mM</b>	0.1676 mL	0.8380 mL	1.6759 mL
Please refer to the solubility information to select the appropriate solvent.				
<b>In Vivo</b>	1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (3.49 mM); Clear solution  2. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (3.49 mM); Clear solution			

### BIOLOGICAL ACTIVITY

<b>Description</b>	Borussertib is a covalent-allosteric and first-in-class inhibitor of protein kinase Akt, with an IC <sub>50</sub> of 0.8 nM and a K <sub>i</sub> of 2.2 nM for Akt <sup>wt</sup> [1].
<b>IC<sub>50</sub> &amp; Target</b>	IC <sub>50</sub> : 0.8 nM (Akt <sup>wt</sup> )[1].
<b>In Vitro</b>	Borussertib exhibits excellent cellular activity in the nanomolar range—the EC <sub>50</sub> values are 191±90 nM, 48±15 nM, 5±1 nM, 277±90 nM, 373±54 nM, 7770±641 nM in AN3CA (endometrium), T47D (breast), ZR-75-1 (breast), MCF-7 (breast), BT-474 (breast) and KU-19-19 (bladder) cell lines, respectively[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

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## REFERENCES

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[1]. Niklas Uhlenbrock, et al. Structural and chemical insights into the covalentallosteric inhibition of the protein kinase Akt. Chem Sci., 2019, 10, 3573.

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**Caution: Product has not been fully validated for medical applications. For research use only.**

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