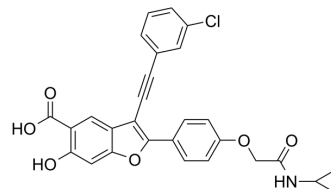


## LYP-IN-1

<b>Cat. No.:</b>	HY-108944		
<b>CAS No.:</b>	1404436-51-6		
<b>Molecular Formula:</b>	C <sub>28</sub> H <sub>20</sub> ClNO <sub>6</sub>		
<b>Molecular Weight:</b>	501.91		
<b>Target:</b>	Phosphatase		
<b>Pathway:</b>	Metabolic Enzyme/Protease		
<b>Storage:</b>	Powder	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



## BIOLOGICAL ACTIVITY

<b>Description</b>	LYP-IN-1 is a potent, selective and specific LYP inhibitor with a K <sub>i</sub> and an IC <sub>50</sub> of 110 nM and 0.259 μM, respectively. LYP-IN-1 also has selectivity for a large panel of PTPs, such as SHP1 (IC <sub>50</sub> =5 μM) and SHP2 (IC <sub>50</sub> =2.5 μM). LYP-IN-1 exhibits highly efficacious cellular activity in T- and mast cells. LYP-IN-1 can be used for the study of autoimmune disorders <sup>[1]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	IC <sub>50</sub> : 0.259 μM (LYP) K <sub>i</sub> : 110 nM (LYP) <sup>[1]</sup>
<b>In Vitro</b>	LYP-IN-1 has inhibitory activity toward a panel of mammalian PTPs including SHP1, SHP2, PTP-Meg2, FAP1 and PTP-PEST, with IC <sub>50</sub> values of 5 μM, 2.5 μM, 0.59 μM, 0.39 μM, and 0.8 μM, respectively <sup>[1]</sup> . LYP-IN-1 (15 μM) increases both basal and TCR-stimulated phosphorylation of ZAP-70 on Tyr319 in JTAg cells <sup>[1]</sup> . LYP-IN-1 (15 μM) treatment of mouse thymocytes effectively causes an increase in the activation of double-positive (DP) thymocytes, it increased surface expression of CD69 (a marker of T cell activation) and Nur77 <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

## REFERENCES

[1]. A Potent and Selective Small-Molecule Inhibitor for the Lymphoid-Specific Tyrosine Phosphatase (LYP), a Target Associated With Autoimmune Diseases

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

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