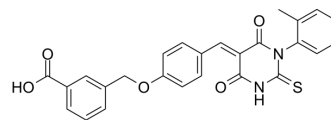


## LTV-1

<b>Cat. No.:</b>	HY-18667		
<b>CAS No.:</b>	347379-29-7		
<b>Molecular Formula:</b>	C <sub>26</sub> H <sub>20</sub> N <sub>2</sub> O <sub>5</sub> S		
<b>Molecular Weight:</b>	472.51		
<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	2 years
		-20°C	1 year



## SOLVENT & SOLUBILITY

### In Vitro

DMSO : 22.73 mg/mL (48.10 mM; Need ultrasonic)

Concentration	Mass		
	1 mg	5 mg	10 mg
1 mM	2.1164 mL	10.5818 mL	21.1636 mL
5 mM	0.4233 mL	2.1164 mL	4.2327 mL
10 mM	0.2116 mL	1.0582 mL	2.1164 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 (5.29 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: 2.08 mg/mL (4.40 mM); Clear solution; Need ultrasonic

## BIOLOGICAL ACTIVITY

### Description

LTV-1 is a potent lymphoid tyrosine phosphatase (LYP) inhibitor in T cells with an IC<sub>50</sub> of 508 nM. LTV-1 has the potential for autoimmunity treatment<sup>[1]</sup>.

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

IC<sub>50</sub>: 508 nM (LYP, in T cells)<sup>[1]</sup>

### In Vitro

LTV-1 (1.25-40 μM) has no notable effect on cell viability (metabolic rate assay), even at the highest concentration tested (40 μM). Thus, LTV-1 is not cytotoxic in HeLa cells, Jurkat TAG T cells and peripheral blood mononuclear cells (PBMC)<sup>[1]</sup>.  
MCE has not independently confirmed the accuracy of these methods. They are for reference only.  
Cell Viability Assay<sup>[1]</sup>

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Cell Line:	HeLa cells, Jurkat TAG T cells, and PBMC
Concentration:	1.25, 2.5, 5.0, 10, 20 , and 40 $\mu$ M
Incubation Time:	48 hours
Result:	Had no notable effect on cell viability (metabolic rate assay), even at the highest concentration tested (40 $\mu$ M).

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## REFERENCES

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[1]. Vang T, et al. LYP inhibits T-cell activation when dissociated from CSK. Nat Chem Biol. 2012 Mar 18;8(5):437-446.

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

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