

IMMH001

## Chemical Properties

CAS No. : 1418093-75-0

Formula: C<sub>23</sub>H<sub>28</sub>N<sub>2</sub>O<sub>3</sub>

Molecular Weight: 380.48

Storage: Keep away from direct sunlight, Keep away from moisture, Store at low temperature  
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	IMMH001, also known as SYL930, is an orally active compound that functions as a highly selective agonist of sphingosine-1-phosphate receptor 1 (S1P1). IMM001 effectively reduces the levels of multiple chemokines and proinflammatory cytokines, including IL-1 $\beta$ , IL-5, IL-18, IP10, CCL3, and CCL5. IMM001 is applicable to investigations involving rheumatoid arthritis (RA), immune cell trafficking, inflammatory signaling cascades, and sphingosine-1-phosphate receptor-mediated immunoregulation.
Targets(IC50)	S1P Receptor
In vivo	IMMH001 is metabolized into its active monophosphate ester form, (S)-IMMH001-P, by the action of sphingosine kinase 1 (SphK1) and sphingosine kinase 2 (SphK2) in vivo [1]. IMM001 effectively diminishes disease manifestations mediated by both Th1 (IL-1 $\beta$ , IL-18, and IP10) and Th2 (IL-5) cells in inflamed joints [2]. IMM001 (0.3-2.4 mg/kg, Orally; twice a week, for 28 days, AA rats; for 30 days, CIA rats) significantly alleviates joint damage in these models [2].

## Solubility Information

Solubility	DMSO: 80 mg/mL (210.26 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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### Preparing Stock Solutions

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	1mg	5mg	10mg
1 mM	2.6283 mL	13.1413 mL	26.2826 mL
5 mM	0.5257 mL	2.6283 mL	5.2565 mL
10 mM	0.2628 mL	1.3141 mL	2.6283 mL
50 mM	0.0526 mL	0.2628 mL	0.5257 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

Xiao Q, et al. Design and synthesis of analogues of the sphingosine-1-phosphate receptor 1 agonist IMM001 with improved phosphorylation rate in human blood. *Bioorg Med Chem.* 2020 Nov 1;28(21):115722.

Jin J, et al. Sphingosine-1-Phosphate Receptor Subtype 1 (S1P1) Modulator IMM001 Regulates Adjuvant- and Collagen-Induced Arthritis. *Front Pharmacol.* 2019 Sep 19;10:1085.

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