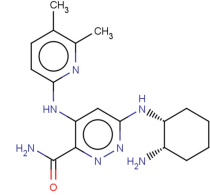


## Data Sheet (Cat.No.T16776)

RO9021

### Chemical Properties

CAS No.:	1446790-62-0
Formula:	C <sub>18</sub> H <sub>25</sub> N <sub>7</sub> O
Molecular Weight:	355.44
Appearance:	N/A
Storage:	0-4°C for short term (days to weeks), or -20°C for long term (months).



### Biological Description

Description	RO9021 is an orally bioavailable, novel ATP-competitive SYK inhibitor (average IC <sub>50</sub> : 5.6 nM).
Targets(IC <sub>50</sub> )	SYK: 5.6 nM
In vitro	RO9021 inhibits anti-IgM induced phosphorylation of BTK, PLCγ <sub>2</sub> , AKT and ERK, indicating that blockade of SYK kinase activity by RO9021 results in attenuation of BCR downstream signaling cascade. RO9021 selectively suppresses B-cell receptor signaling. RO9021 is a highly selective SYK inhibitor with low S-scores of 0.003 for S(99) and 0.015 for S(90), indicating that SYK is the only kinase with 99% competition with RO9021 in a total of 392 tested kinases. RO9021 also shows a similar inhibitory potency (IC <sub>50</sub> =22.8±1.7 nM) in a FcεR-mediated mast cell activation and degranulation assay [1].

### Solubility Information

Solubility	DMSO: 3 mg/mL (8.44 mM) ( < 1 mg/ml refers to the product slightly soluble or insoluble)
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#### Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.813 mL	14.067 mL	28.134 mL
5 mM	0.563 mL	2.813 mL	5.627 mL
10 mM	0.281 mL	1.407 mL	2.813 mL
50 mM	0.056 mL	0.281 mL	0.563 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. The storage conditions and period of the stock solution: - 80 °C for 6 months; - 20 °C for 1 month. Please use it as soon as possible.

#### Reference

1. Liao C, et al. Selective inhibition of spleen tyrosine kinase (SYK) with a novel orally bioavailable small molecule inhibitor, RO9021, impinges on various innate and adaptive immune responses: implications for SYK inhibitors in autoimmune disease therapy.

Inhibitors · Natural Compounds · Compound Libraries

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