Product Datasheet

Technical Data

Formula	$C_{18}H_{25}N_7O$					
Molecular Weight	355.44	**CAS No.**	1446790-62-0			
Solubility (25°C)*	In vitro	DMSO	71 mg/mL (199.75 mM)			
		Ethanol	18 mg/mL (50.64 mM)			
		Water	Insoluble			
	In vivo (Add solvents to the product individually and in order)	Oral Administration	Homogeneous suspension	CMC-NA	≥5mg/ml	Taking the 1 mL working solution as an example, add 5 mg of this product to 1 ml of CMC-Na solution, mix evenly to obtain a homogeneous suspension with a final concentration of 5 mg/ml.
		Injection	Clear solution	5%DMSO [1]→ 40%PEG300 [2]→ 5%Tween80 [3]→ 50%ddH2O Validated by Capsid Bio labs. Should you need adjustments to this formulation, contact our sales team for custom testing.	0.2mg/ml (0.56mM)	Taking the 1 mL working solution as an example, add 50 μL of 4 mg/ml clarified DMSO stock solution to 400 μL of PEG300, mix evenly to clarify it; add 50 μL of Tween80 to the above system, mix evenly to clarify; then continue to add 500 μL of ddH2O to adjust the volume to 1 mL. The mixed solution should be used immediately for optimal results.
			Clear solution	5% DMSO [1]→ 95% Corn oil Validated by Capsid Bio labs. Should you need adjustments to this formulation, contact our sales team for custom testing.	0.2mg/ml (0.56mM)	Taking the 1 mL working solution as an example, add 50 μL of 4 mg/ml clear DMSO stock solution to 950 μL of corn oil and mix evenly. The mixed solution should be used immediately for optimal results.

* <1 mg/ml means slightly soluble or insoluble.
* Please note that Capsid Bio tests the solubility of all compounds in-house, and the actual solubility may differ slightly from published values. This is normal and is due to slight batch-to-batch variations.
* Room temperature shipping (Stability testing shows this product can be shipped at 2-8°C for storage purposes.)

Preparing Stock Solutions

Biological Activity

Description	RO9021 potently inhibits **SYK kinase** activity with an average IC50 of 5.6 nM and suppresses B-cell receptor signaling.
Targets	Syk [1] (Cell-free assay) 5.6 nM
In vitro	RO9021 suppresses BCR signaling in human peripheral blood mononuclear cells (PBMC) and whole blood, FcγR signaling in human monocytes, and FcεR signaling in human mast cells and blocks osteoclastogenesis from mouse bone marrow macrophages in vitro. Toll-like Receptor(TLR) 9 signaling in human Bcells was inhibited by this compound, resulting in decreased levels of plasmablasts, immunoglobulin (Ig)M and IgG upon B-cell differentiation. It also potently inhibited type I interferon production by human plasmacytoid dendritic cells (pDC) upon TLR9 activation. This effect is specific to TLR9 as this chemical did not inhibit TLR4- or JAK-STAT-mediated signaling. It does not appreciably inhibit the JAK-STAT pathway[1].
In vivo	Oral administration of RO9021 inhibits arthritis progression in the mCIA model[1].

Protocol (from reference)

Cell Assay:[1]

- **Cell lines**
  Human B-cell line, Ramos
- **Concentrations**
  1 μM
- **Incubation Time**
  5 or 15 min
- **Method**
  The human B-cell line, Ramos, was pretreated with 1 μM RO9021 prior to anti-IgM antibody-induced cross-linking of the BCR. The activation of various BCR signaling components was assessed by western blot using phosphospecific antibodies.

Animal Study:[1]

- **Animal Models**
  C57BL/6 and DBA/1J adult mice
- **Dosages**
  5 and 45 mg/kg daily
- **Administration**
  oral administration

References

https://pubmed.ncbi.nlm.nih.gov/24286216/

RETURN POLICY

Capsid Bio's Unconditional Return Policy ensures a smooth online shopping experience for our customers. If you are in any way unsatisfied with your purchase, you may return any item(s) within 7 days of receiving it. In the event of product quality issues, either protocol related or product related problems, you may return any item(s) within 365 days from the original purchase date. Please follow the instructions below when returning products.

SHIPPING & STORAGE

Capsid Bio products are transported at room temperature. If you receive the product at room temperature, please rest assured, the Capsid Bio Quality Inspection Department has conducted experiments to verify that the normal temperature placement of one month will not affect the biological activity of powder products. After collecting, please store the product according to the requirements described in the datasheet. Most Capsid Bio products are stable under the recommended conditions.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

EU Headquarters
Gajeva ulica 28, HR-10000 Zagreb, Croatia

US Headquarters
12222 Merit Dr STE 130 Dallas, Texas, 75251

UK Headquarters
121 ABILITY HOUSE, BROOKER ROAD, EN9 1JH, ESSEX

Orders: Sales@capsidbio.com
Enquiries: info@capsidbio.com
www.capsidbio.com