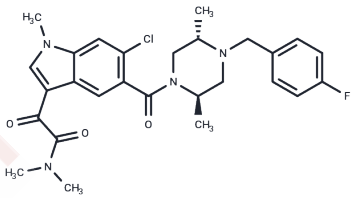
# Data Sheet (Cat.No.T12871)

TargetMol

## Talmapimod

### Chemical Properties



CAS No. : 309913-83-5

Formula: C27H30ClFN4O3

Molecular Weight: 513

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

### Biological Description

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|---|---|
| Description | Talmapimod (SCIO-469) is a selective, orally active, ATP-competitive p38α inhibitor with IC50 values of 9 nM for p38α and 90 nM for p38β. Talmapimod exhibits at least 2000-fold selectivity over a panel of 20 kinases, including other MAPKs. |
| Targets(IC50) | p38 MAPK |
| In vitro | phosphorylation of p38 MAPK inhibited by Talmapimod (100-200 nM; 1 hour) in MM cells [1].In human whole blood, LPS-induced TNF-a production inhibited by Talmapimod [2]. Talmapimod decreases constitutive p38alpha MAPK phosphorylation of both 5T2MM and 5T33MM cells[3]. |
| In vivo | Talmapimod (SCIO-469), targeting p38α MAPK, reduces myeloma burden and prevents myeloma bone disease[2]. In 5T2MM and 5T33MM models, it inhibits multiple myeloma growth and bone diseases[3]. Administered at 10-90 mg/kg orally, twice daily for 14 days, Talmapimod dose-dependently diminishes tumor growth and decreases the weight of palpable tumors at termination[4]. |

### Solubility Information

| | |
|---|---|
| Solubility | DMSO: 95 mg/mL (185.19 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 1.9493 mL | 9.7466 mL | 19.4932 mL |
| 5 mM | 0.3899 mL | 1.9493 mL | 3.8986 mL |
| 10 mM | 0.1949 mL | 0.9747 mL | 1.9493 mL |
| 50 mM | 0.039 mL | 0.1949 mL | 0.3899 mL |

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

Hideshima T et al. p38 MAPK inhibition enhances PS-341 (bortezomib)-induced cytotoxicity against multiple myeloma cells. Oncogene. 2004 Nov 18, 23(54), 8766-76.
Navas T, et al. Inhibition of p38alpha MAPK disrupts the pathological loop of proinflammatory factor production in the myelodysplastic syndrome bone marrow microenvironment. Leuk Lymphoma. 2008 Oct;49(10):1963-75.
Vanderkerken K et al. Inhibition of p38alpha mitogen-activated protein kinase prevents the development of osteolytic bone disease,reduces tumor burden, and increases survival in murine models of multiple myeloma. Cancer Res. 2007 May 15;67(10):4572-7.
Medicherla S, et al. p38alpha-selective MAP kinase inhibitor reduces tumor growth in mouse xenograft models of multiple myeloma. Anticancer Res. 2008 Nov-Dec;28(6A):3827-33.



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