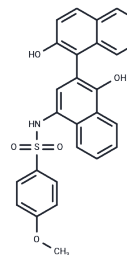


C188-9

## Chemical Properties

CAS No. : 432001-19-9  
 Formula: C<sub>27</sub>H<sub>21</sub>NO<sub>5</sub>  
 Molecular Weight: 471.52  
 Appearance: no data available  
 Storage: store under nitrogen  
 Powder: -20°C for 3 years | In solvent: -80°C for 1 year



## Biological Description

Description	C188-9 (TTI-101) is a Stat3 inhibitor with an IC <sub>50</sub> of 4-7 μM.
Targets(IC <sub>50</sub> )	Apoptosis,STAT
In vitro	For apoptosis studies, AML cell lines and primary samples are treated for 24 hours with C188-9, then apoptotic cells are quantified by FACS analysis for annexin V-labeled cells. The EC <sub>50</sub> s for apoptosis induction are quite variable, ranging from 6 μM to over 50 μM
In vivo	In an analysis of approximately 13,528 discernible genes, C188 influences the expression of 37 gene transcripts (17 downregulated and 20 upregulated, false discovery rate (fdr)<0.01, fold change≥1.5), including 7 known targets of STAT3. Conversely, C188-9 exhibits a broader impact, modifying the expression of 384 genes related to oncogenesis (95 down- and 289 up-regulated), 76 of which are regulated by STAT3 (38 down-regulated and 38 up-regulated). Notably, C188-9 treatment downregulates 24 out of 38 genes (63%) previously identified as upregulated by STAT3. Furthermore, C188-9 downregulates an additional 10 genes (fdr <0.01, fold change≥1.5) known to be upregulated by STAT1, suggesting that 83.3% (40 out of 48) of the genes downregulated by C188-9 are positively regulated by STAT1. This includes sixteen genes co-regulated by both STAT3 and STAT1. The findings suggest that C188-9's modulation of gene transcript levels in head and neck squamous cell carcinoma (HNSCC) tumors may be attributed to its dual influence on STAT3 and STAT1 pathways.

## Solubility Information

Solubility	DMSO: 60 mg/mL (127.25 mM),Sonication is recommended. 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 6 mg/mL (12.72 mM),Solution. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1208 mL	10.604 mL	21.208 mL
5 mM	0.4242 mL	2.1208 mL	4.2416 mL
10 mM	0.2121 mL	1.0604 mL	2.1208 mL
50 mM	0.0424 mL	0.2121 mL	0.4242 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.

## Reference

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- Gu H, Chen C, Hao X, et al. MDH1-mediated malate-aspartate NADH shuttle maintains the activity levels of fetal liver hematopoietic stem cells[J]. *Blood*. 2021, 137(11): 1478-1490.

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