**Proteins** 

# **TMP920**

Cat. No.: HY-117819 CAS No.: 1421837-45-7 Molecular Formula:  $C_{29}H_{30}N_{2}O_{3}$ Molecular Weight: 454.56 ROR Target:

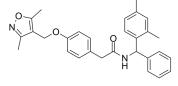
Pathway: Metabolic Enzyme/Protease; Vitamin D Related/Nuclear Receptor

Storage: Powder -20°C 3 years

 $4^{\circ}C$ 2 years

-80°C In solvent 2 years

> -20°C 1 year



**Product** Data Sheet

### **SOLVENT & SOLUBILITY**

In Vitro

DMSO: 62.5 mg/mL (137.50 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent Mass Concentration	1 mg	5 mg	10 mg
	1 mM	2.1999 mL	10.9996 mL	21.9993 mL
	5 mM	0.4400 mL	2.1999 mL	4.3999 mL
	10 mM	0.2200 mL	1.1000 mL	2.1999 mL

Please refer to the solubility information to select the appropriate solvent.

## **BIOLOGICAL ACTIVITY**

Description TMP920 is a highly potent and selective ROR $\gamma$ t antagonist. TMP920 inhibits ROR $\gamma$ t binding to the SRC1 peptide with an IC $_{50}$ 

of 0.03  $\mu M^{[1]}$ .

IC<sub>50</sub> & Target IC50: 0.03  $\mu\text{M}~(\text{ROR}\gamma t)^{[1]}$ 

In Vitro TMP920 (0.09-30  $\mu$ M) starts to show toxic effects on cell growth at >10  $\mu$ M in Naïve CD4<sup>+</sup> T cells<sup>[1]</sup>.

TMP920 suppresses Th17 cell differentiation and lost its IL-17 inhibitory effect at <2.5  $\mu$ M in vitro<sup>[1]</sup>.

 ${\it TMP920 suppresses IL-17 production from differentiated Th17 cells in vitro} {\it [1]}.$ 

TMP920 suppresses the Th17 cell transcriptome and promotes alternate T-cell subsets<sup>[1]</sup>.

TMP920 significantly reduces ROR $\gamma$ t-DNA interactions<sup>[1]</sup>.

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Cytotoxicity Assay<sup>[1]</sup>

Cell Line: Naïve CD4 + T cells

Concentration:	0.09-30 μΜ
Incubation Time:	48 hours
Result:	Has toxic effects on cell growth at >10 μM.

### **REFERENCES**

[1]. Xiao S, et al. Small-molecule RORyt antagonists inhibit T helper 17 cell transcriptional network by divergent mechanisms. Immunity. 2014 Apr 17;40(4):477-89.

Caution: Product has not been fully validated for medical applications. For research use only.

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