ZYF0033

Cat. No.: HY-144088

CAS No.: 2380300-79-6

Molecular Formula: $C_{26}H_{30}N_4O_2S$

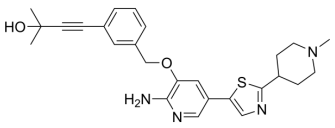
Molecular Weight: 462.61

Target: MAP4K

Pathway: MAPK/ERK Pathway

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (216.16 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	2.1616 mL	10.8082 mL	21.6165 mL
5 mM	0.4323 mL	2.1616 mL	4.3233 mL
10 mM	0.2162 mL	1.0808 mL	2.1616 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (5.40 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (5.40 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (5.40 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

ZYF0033 is effective in inhibiting hematopoietic progenitor cells HPK1, basically inhibiting MBP protein oxidation IC_{50} 10 nM . ZYF0033 promotes anti-cancer immune response, lowers SLP76 (acid 376) oxidation. ZYF0033 Suppression 4T-1 Small mouse model with the same underlying cause, medium bulge growth length expansion DC, NK ⊠⊠⊠ CD107a^{+} CD8^{+} T Cells, PD-1 $^{+}$CD8^{+} T Cells, TIM-3^{+}CD8^{+} T Cells LAG3< sup>$^{+}$CD8^{+} T Cellular immersion decreases.

IC_{50} & Target

HPK1

<10 nM (IC_{50})

In Vitro	ZYF0033 (100 nM; 24 h) reduces phosphorylation of SLP76 (serine 376), a key biomarker of T cell and HPK1 activation. ZYF0033 causes HPK1 inhibition, increased proliferation of CD4+ and CD8+ T cells, and IFN-γ secretion[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.
In Vivo	The maximum tolerated dose of ZYF0033 exceeds 50 mg/kg (daily; po) and exceeds 120 mg/kg in a 6-day toxicity study. In the 4T-1 syngeneic mouse model, ZYF0033 regulates immune cell subsets, increases DC and NK cell infiltration, and promotes anti-cancer immune response[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Jingwen Si, et al. Hematopoietic Progenitor Kinase1 (HPK1) Mediates T Cell Dysfunction and Is a Druggable Target for T Cell-Based Immunotherapies. Cancer Cell. 2020 Oct 12;38(4):551-566.e11.

[2]. Si J, et al. Hematopoietic Progenitor Kinase1 (HPK1) Mediates T Cell Dysfunction and Is a Druggable Target for T Cell-Based Immunotherapies. Cancer Cell. 2020 Oct 12;38(4):551-566.e11.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA