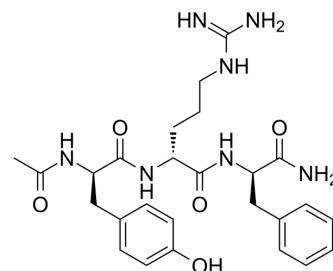


DTP3

Cat. No.:	HY-100538
CAS No.:	1809784-29-9
Molecular Formula:	C ₂₆ H ₃₅ N ₇ O ₅
Molecular Weight:	525.6
Target:	DNA/RNA Synthesis; JAK
Pathway:	Cell Cycle/DNA Damage; Epigenetics; JAK/STAT Signaling; Protein Tyrosine Kinase/RTK; Stem Cell/Wnt
Storage:	Sealed storage, away from moisture and light Powder -80°C 2 years -20°C 1 year * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture and light)



SOLVENT & SOLUBILITY

In Vitro

H₂O : ≥ 100 mg/mL (190.26 mM)
 DMSO : 100 mg/mL (190.26 mM; Need ultrasonic)
 * "≥" means soluble, but saturation unknown.

Preparing Stock Solutions	Solvent Concentration	Mass		
		1 mg	5 mg	10 mg
	1 mM	1.9026 mL	9.5129 mL	19.0259 mL
	5 mM	0.3805 mL	1.9026 mL	3.8052 mL
	10 mM	0.1903 mL	0.9513 mL	1.9026 mL

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

In Vivo

- Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
 Solubility: ≥ 2.5 mg/mL (4.76 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
 Solubility: ≥ 2.5 mg/mL (4.76 mM); Clear solution
- Add each solvent one by one: 10% DMSO >> 90% corn oil
 Solubility: ≥ 2.5 mg/mL (4.76 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

DTP3 TFA is a potent and selective GADD45β/MKK7 inhibitor. DTP3 TFA targets an essential, cancer-selective cell-survival module downstream of the NF-κB pathway^[1].

In Vitro	DTP3 (10 μ M; 1-21 days) causes the potent and tumor-selective induction of JNK activation and apoptosis, as shown by the appearance of phosphorylated JNK, as early as 24 hours ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.								
In Vivo	DTP3 TFA (s.c.; 14.5 mg/kg/day; 28 days) has shown a dramatic shrinkage of the tumors, and virtually eradicates established subcutaneous myeloma xenografts in mice ^[2] . DTP3 TFA (intravenous injection; 10 mg/kg/day) has $t_{1/2}$ of 1.26 hours, CL of 27.13 ML/min/kg, and V_d of 2.80 L/kg ^[2] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.								
	<table border="1"> <tr> <td>Animal Model:</td> <td>6 to 8-week old male NOD/SCID mice (NOD.CB17-Prkdcscid/lcrCrl; Charles River)^[2]</td> </tr> <tr> <td>Dosage:</td> <td>14.5 mg/kg</td> </tr> <tr> <td>Administration:</td> <td>S.c.; daily; 28 days</td> </tr> <tr> <td>Result:</td> <td>Had shown a dramatic shrinkage of the tumors.</td> </tr> </table>	Animal Model:	6 to 8-week old male NOD/SCID mice (NOD.CB17-Prkdcscid/lcrCrl; Charles River) ^[2]	Dosage:	14.5 mg/kg	Administration:	S.c.; daily; 28 days	Result:	Had shown a dramatic shrinkage of the tumors.
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CUSTOMER VALIDATION

- Int J Biol Macromol. 2023 Jun 2;125171.

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REFERENCES

[1]. Tornatore L, et al. Preclinical toxicology and safety pharmacology of the first-in-class GADD45 β /MKK7inhibitor and clinical candidate, DTP3. Toxicol Rep. 2019 Apr 19;6:369-379.

[2]. Tornatore L, et al. Cancer-selective targeting of the NF- κ B survival pathway with GADD45 β /MKK7 inhibitors. Cancer Cell. 2014 Oct 13;26(4):495-508.

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

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