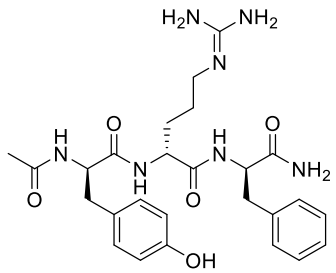
Product data sheet

MedKoo Cat#: 555974 Name: DTP3 inhibitor CAS: 1809784-29-9 Chemical Formula: $C_{26}H_{35}N_7O_5$ Exact Mass: 525.27 Molecular Weight: 525.61	
Product supplied as:	Powder
Purity (by HPLC):	≥ 98%
Shipping conditions	Ambient temperature
Storage conditions:	Powder: -20°C 3 years; 4°C 2 years.
	In solvent: -80°C 3 months; -20°C 2 weeks.

1. Product description:
DTP3 specifically kills MM cells, ex vivo and in vivo, ablating MM xenografts in mice, with no apparent adverse effects, nor evident toxicity to healthy cells. DTP3 combines on-target-selective pharmacology, therapeutic anticancer efficacy, favourable drug-like properties, long plasma half-life and good bioavailability, with no target-organs of toxicity and no adverse effects preclusive of its clinical development in oncology, upon daily repeat-dose administration in both rodent and non-rodent species.

2. CoA, QC data, SDS, and handling instruction
SDS and handling instruction, CoA with copies of QC data (NMR, HPLC and MS analytical spectra) can be downloaded from the product web page under "QC And Documents" section. Note: copies of analytical spectra may not be available if the product is being supplied by MedKoo partners. Whether the product was made by MedKoo or provided by its partners, the quality is 100% guaranteed.

3. Solubility data

Solvent	Max Conc. mg/mL	Max Conc. mM
DMSO	100.0	190.26
Ethanol	100.0	190.26
Water	100.0	190.26

4. Stock solution preparation table:

Concentration / Solvent Volume / Mass	1 mg	5 mg	10 mg
1 mM	1.90 mL	9.51 mL	19.03 mL
5 mM	0.38 mL	1.90 mL	3.81 mL
10 mM	0.19 mL	0.95 mL	1.90 mL
50 mM	0.04 mL	0.19 mL	0.38 mL

5. Molarity Calculator, Reconstitution Calculator, Dilution Calculator
Please refer the product web page under section of "Calculator"

6. Recommended literature which reported protocols for in vitro and in vivo study
In vitro study

1. Tornatore L, Sandomenico A, Raimondo D, Low C, Rocci A, Tralau-Stewart C, Capece D, D'Andrea D, Bua M, Boyle E, van Duin M, Zoppoli P, Jaxa-Chamiec A, Thotakura AK, Dyson J, Walker BA, Leonardi A, Chambery A, Driessen C, Sonneveld P, Morgan G, Palumbo A, Tramontano A, Rahemtulla A, Ruvo M, Franzoso G. Cancer-selective targeting of the NF-κB survival pathway with GADD45β/MKK7 inhibitors. Cancer Cell. 2014 Oct 13;26(4):495-508. doi: 10.1016/j.ccr.2014.07.027. Erratum in: Cancer Cell. 2014 Dec 8;26(6):938. PMID: 25314077; PMCID: PMC4197335.

In vivo study

1. Tornatore L, Capece D, D'Andrea D, Begalli F, Verzella D, Bennett J, Acton G, Campbell EA, Kelly J, Tarbit M, Adams N, Bannoo S, Leonardi A, Sandomenico A, Raimondo D, Ruvo M, Chambery A, Oblak M, Al-Obaidi MJ, Kaczmarski RS, Gabriel I, Oakervee HE, Kaiser MF, Wechalekar A, Benjamin R, Apperley JF, Auner HW, Franzoso G. Preclinical toxicology and safety pharmacology of the first-in-class GADD45β/MKK7 inhibitor and clinical candidate, DTP3. Toxicol Rep. 2019 Apr 19;6:369-379. doi: 10.1016/j.toxrep.2019.04.006. PMID: 31080744; PMCID: PMC6502747.

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7. Bioactivity

Biological target:

DTP3 is a potent and selective GADD45β/MKK7 inhibitor.

In vitro activity

DTP3 has similar anticancer potency to the clinical standard, bortezomib, but more than 100-fold higher cancer cell specificity in vitro.

Reference: Cancer Cell. 2014 Oct 13;26(4):495-508. https://pubmed.ncbi.nlm.nih.gov/25314077/

In vivo activity

As a result, DTP3 specifically kills MM cells, ex vivo and in vivo, ablating MM xenografts in mice, with no apparent adverse effects, nor evident toxicity to healthy cells.

Reference: Toxicol Rep. 2019 Apr 19;6:369-379. https://pubmed.ncbi.nlm.nih.gov/31080744/

Note: The information listed here was extracted from literature. MedKoo has not independently retested and confirmed the accuracy of these methods. Customer should use it just for a reference only.