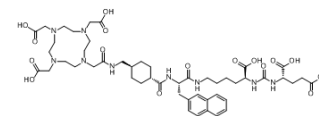


Vipivotide tetraxetan

Cat. No.:	HY-117410												
CAS No.:	1702967-37-0												
Molecular Formula:	C ₄₉ H ₇₁ N ₉ O ₁₆												
Molecular Weight:	1042.14												
Target:	Drug-Linker Conjugates for ADC												
Pathway:	Antibody-drug Conjugate/ADC Related												
Storage:	<table border="0"> <tr> <td>Powder</td> <td>-20°C</td> <td>3 years</td> </tr> <tr> <td></td> <td>4°C</td> <td>2 years</td> </tr> <tr> <td>In solvent</td> <td>-80°C</td> <td>6 months</td> </tr> <tr> <td></td> <td>-20°C</td> <td>1 month</td> </tr> </table>	Powder	-20°C	3 years		4°C	2 years	In solvent	-80°C	6 months		-20°C	1 month
Powder	-20°C	3 years											
	4°C	2 years											
In solvent	-80°C	6 months											
	-20°C	1 month											



SOLVENT & SOLUBILITY

In Vitro	DMSO : 125 mg/mL (119.95 mM; Need ultrasonic)			
		Solvent Concentration	Mass	
			1 mg	5 mg
	Preparing Stock Solutions	1 mM	0.9596 mL	4.7978 mL
		5 mM	0.1919 mL	0.9596 mL
		10 mM	0.0960 mL	0.4798 mL
	Please refer to the solubility information to select the appropriate solvent.			
In Vivo	<ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.08 mg/mL (2.00 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.08 mg/mL (2.00 mM); Clear solution Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.08 mg/mL (2.00 mM); Clear solution 			

BIOLOGICAL ACTIVITY

Description	Vipivotide tetraxetan (PSMA-617) is a high potent prostate-specific membrane antigen (PSMA) inhibitor, with a K _i of 0.37 nM.
IC₅₀ & Target	Traditional Cytotoxic Agents
In Vitro	Vipivotide tetraxetan (PSMA-617) demonstrates high radiolytic stability for at least 72 h. A high inhibition potency (equilibrium dissociation constant K _i =2.34±2.94 nM on LNCaP; K _i =0.37±0.21 nM enzymatically determined) and highly efficient internalization into LNCaP cells are demonstrated ^[1] .

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

In Vivo

Organ distribution with ⁶⁸Ga-labeled Vipivotide tetraxetan (PSMA-617) after 1 h (n=3) reveals a high specific uptake in LNCaP tumors and in the kidneys. The high uptake in the kidneys is nearly completely blocked by coinjection of 2 mg of 2-PMPA per kilogram. Other organs such as the liver, lung, and spleen show rather low uptake and no blocking effect, with the exception of the spleen. Tumor-to-background ratios are 7.8 (tumor to blood) and 17.1 (tumor to muscle) at 1 h after injection. As compared with the ⁶⁸Ga-labeled version, the organ distribution with ¹⁷⁷Lu-labeled Vipivotide tetraxetan (PSMA-617) (n=3) show a similar uptake in the LNCaP tumors and in the kidneys. The liver uptake is found to be statistically different. Tumor-to-background ratios determined 1 h after injection show slightly higher values (tumor to blood, 22.1; tumor to muscle, 25.6) than previous organ distribution with ⁶⁸Ga-labeled Vipivotide tetraxetan (PSMA-617)^[1].

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

CUSTOMER VALIDATION

- Biomolecules. 2021 Feb 10;11(2):263.

See more customer validations on www.MedChemExpress.com

REFERENCES

[1]. Benešová M, et al. Preclinical Evaluation of a Tailor-Made DOTA-Conjugated PSMA Inhibitor with Optimized Linker Moiety for Imaging and Endoradiotherapy of Prostate Cancer. J Nucl Med. 2015 Jun;56(6):914-20.

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

India Contact:

Life Technologies (India) Pvt. Ltd.

306, Aggarwal City Mall, Opposite M2K Pitampura, Delhi – 110034 (INDIA). Ph: +91-11-42208000, 42208111, 42208222, Mobile: +91-9810521400, Fax: +91-11-42208444

Email: customerservice@lifetechindia.com Website: www.lifetechindia.com