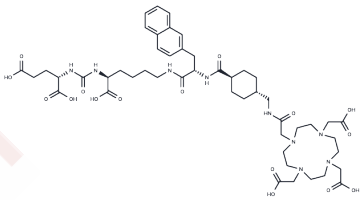
Data Sheet (Cat.No.T12573)

TargetMol

Vipivotide tetraxetan

Chemical Properties



CAS No. : 1702967-37-0

Formula: C49H71N9O16

Molecular Weight: 1042.14

Storage: Store at low temperature
Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	Vipivotide tetraxetan (PSMA-617) is a highly potent inhibitor of prostate-specific membrane antigen (PSMA) with a Ki of 0.37 nM.
Targets(IC50)	Drug-Linker Conjugates for ADC,PSMA
In vitro	The chemically modified PSMA inhibitor PSMA-617 demonstrated 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 were demonstrated.
In vivo	The small-animal PET measurements showed high tumor-to-background contrasts as early as 1 h after injection of Vipivotide tetraxetan.Organ distribution revealed specific uptake in LNCaP tumors and in the kidneys 1 h after injection of Vipivotide tetraxetan[1].

Solubility Information

Solubility	DMSO: 100 mg/mL (95.96 mM),Sonication is recommended. H2O: 100 mg/mL (95.96 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 4 mg/mL (3.84 mM),Sonication is recommended. *Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.9596 mL	4.7978 mL	9.5956 mL
5 mM	0.1919 mL	0.9596 mL	1.9191 mL
10 mM	0.096 mL	0.4798 mL	0.9596 mL
50 mM	0.0192 mL	0.096 mL	0.1919 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

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.
Tachatumvitoon K, Preuksarattanawut C, Tippayamontri T, et al.Tc-99m labeled PSMA-617 as a potential SPECT radiotracer for prostate cancer diagnostics: Complexation optimization and its in vitro/vivo evaluation.Bioorganic & Medicinal Chemistry.2025: 118058.