

PSMA-11

Chemical Properties

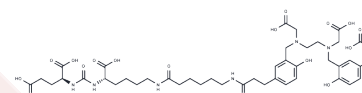
CAS No. : 1366302-52-4

Formula: C44H62N6O17

Molecular Weight: 946.99

Storage: 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	PSMA-11 (HBED-CC-PSMA) detects prostate cancer recurrence and metastasis by binding to the extracellular structural domain of prostate-specific membrane antigen (PSMA). PSMA-11 is often used as a tracer of PSMA-expressing tumours in positron emission tomography (PET) scanning by intravenous injection of gallium Ga 68-labelled PSMA-11, Glu-urea-Lys(Ahx) molecule targeted and bound PSMA-expressing tumour cells. After internalisation, PSMA-expressing tumour cells could be detected on PET
Targets(IC50)	PSMA

Solubility Information

Solubility	DMSO: 90 mg/mL (95.04 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: 3.3 mg/mL (3.48 mM), Sonication is recommended. <i>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.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.056 mL	5.2799 mL	10.5598 mL
5 mM	0.2112 mL	1.056 mL	2.112 mL
10 mM	0.1056 mL	0.528 mL	1.056 mL
50 mM	0.0211 mL	0.1056 mL	0.2112 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

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- Verburg FA, et al. PSA levels, PSA doubling time, Gleason score and prior therapy cannot predict measured uptake of [(68)Ga]PSMA-HBED-CC lesion uptake in recurrent/metastatic prostate cancer. *Nuklearmedizin.* 2017;56(6).
- Amor-Coarasa A, et al. Continuation of comprehensive quality control of the itG (68)Ge/(68)Ga generator and production of (68)Ga-DOTATOC and (68)Ga-PSMA-HBED-CC for clinical research studies. *Nucl Med Biol.* 2017;53: 37-39.
- Janssen JC, et al. [(68)Ga]PSMA-HBED-CC Uptake in Osteolytic, Osteoblastic, and Bone Marrow Metastases of Prostate Cancer Patients. *Mol Imaging Biol.* 2017;19(6):933-943.
- Benešová M, et al. Linker Modification Strategies To Control the Prostate-Specific Membrane Antigen (PSMA)-Targeting and Pharmacokinetic Properties of DOTA-Conjugated PSMA Inhibitors. *J Med Chem.* 2016;59(5):1761-1775.
- Tykvart J, et al. Design of highly potent urea-based, exosite-binding inhibitors selective for glutamate carboxypeptidase II. *J Med Chem.* 2015;58(10):4357-4363.

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