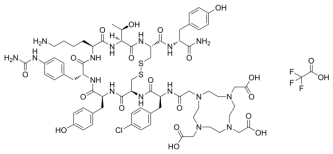
DOTA-LM3 TFA

Cat. No.: HY-P5126A

Molecular Formula: $C_{71}H_{94}ClF_3N_{16}O_{21}S_2$

Molecular Weight: 1664.18

Sequence: DOTA-[p-Cl-Phe-cyclo(D-Cys-Tyr-D-4-amino-Phe(carbamoyl)-Lys-Thr-Cys)D-Tyr-NH2]



Target: Somatostatin Receptor

Pathway: GPCR/G Protein; Neuronal Signaling

Storage: Sealed storage, away from moisture and light, under nitrogen

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, under nitrogen)

SOLVENT & SOLUBILITY

In Vitro

H_2O : 100 mg/mL (60.09 mM; Need ultrasonic)

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	0.6009 mL	3.0045 mL	6.0090 mL
5 mM	0.1202 mL	0.6009 mL	1.2018 mL
10 mM	0.0601 mL	0.3004 mL	0.6009 mL

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

BIOLOGICAL ACTIVITY

Description

DOTA-LM3 TFA is a somatostatin receptor (SSTR) antagonist. LM3 refers to p-Cl-Phe- cyclo(D-Cys-Tyr-D-4-amino-Phe(carbamoyl)-Lys-Thr-Cys)D-Tyr- NH2, as well as a somatostatin antagonist. DOTA-LM3 TFA is often isotopically labeled for tracing tumors in vivo, such as 177Lu-DOTA-LM3 TFA and 68 Ga-DOTA-LM3 TFA. 68 Ga-DOTA-LM3 TFA shows favorable biodistribution, high tumor uptake, good tumor retention, and few safety concerns. 177Lu-DOTA-LM3 TFA can be used for research in DOTATOC-negative liver metastases, such as pancreatic NET and extensive tumor thrombosis[1][2].

In Vitro

177Lu-DOTA-LM3 TFA is tolerated. 177Lu-DOTA-LM3 TFA in the whole body and in the kidneys, spleen, and metastases, resulting in higher mean absorbed organ and tumor doses[2].

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

REFERENCES

[1]. Zhu W, et al. A prospective randomized, double-blind study to evaluate the diagnostic efficacy of 68Ga-NODAGA-LM3 and 68Ga-DOTA-LM3 in patients with well-

differentiated neuroendocrine tumors: compared with 68Ga-DOTATATE. Eur J Nucl Med Mol Imaging. 2022 Apr;49(5):1613-1622.

[2]. Baum RP, et al. First-in-Humans Study of the SSTR Antagonist 177Lu-DOTA-LM3 for Peptide Receptor Radionuclide Therapy in Patients with Metastatic Neuroendocrine Neoplasms: Dosimetry, Safety, and Efficacy. J Nucl Med. 2021 Nov;62(11):1571-1581.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA