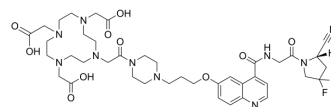


## FAPI-4

Cat. No.:	HY-128643
CAS No.:	2374782-02-0
Molecular Formula:	C <sub>40</sub> H <sub>54</sub> F <sub>2</sub> N <sub>10</sub> O <sub>10</sub>
Molecular Weight:	872.91
Target:	FAP
Pathway:	Immunology/Inflammation
Storage:	-20°C, stored under nitrogen * In solvent : -80°C, 6 months; -20°C, 1 month (stored under nitrogen)



## SOLVENT & SOLUBILITY

In Vitro	DMSO : 100 mg/mL (114.56 mM; Need ultrasonic)				
		Solvent Concentration	Mass		
	Preparing Stock Solutions		1 mg	5 mg	10 mg
		1 mM	1.1456 mL	5.7280 mL	11.4559 mL
		5 mM	0.2291 mL	1.1456 mL	2.2912 mL
	10 mM	0.1146 mL	0.5728 mL	1.1456 mL	
Please refer to the solubility information to select the appropriate solvent.					
In Vivo	1. Add each solvent one by one: Saline Solubility: 4 mg/mL (4.58 mM); Clear solution; Need ultrasonic				
	2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 2.5 mg/mL (2.86 mM); Clear solution				
	3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 2.5 mg/mL (2.86 mM); Clear solution				
	4. Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (2.86 mM); Clear solution				

## BIOLOGICAL ACTIVITY

Description	FAPI-4 is a potent fibroblast activation protein (FAP) inhibitor for the targeting FAP. FAPI-4 can be used in cancer research. <sup>68</sup> Ga-FAPI-4 PET/CT is a promising new diagnostic method for imaging various kinds of cancer, with good tumor-to-background contrast ratios <sup>[1][2]</sup> .
IC <sub>50</sub> & Target	Fibroblast activation protein (FAP) <sup>[1]</sup>
In Vivo	FAPI-4 (Intravenous injection; 30 nmol per mouse; once) shows excellent tumor uptake in BALB/c nu/nu mice <sup>[2]</sup> .

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

Animal Model:	8-week-old BALB/c nu/nu mice inoculated with HT-1080-FAP cells <sup>[2]</sup>
Dosage:	30 nmol per mouse
Administration:	Intravenous injection; 30 nmol per mouse; once
Result:	Revealed the high overall tumor uptake (9.44%ID/g 4 h after injection).

## CUSTOMER VALIDATION

- Radiology. 2023 May 23;222448.
- Eur J Nucl Med Mol Imaging. 2021 Aug 19.
- Eur J Nucl Med Mol Imaging. 2021 Apr 7.
- Mol Pharm. 2023 Nov 16.
- Mol Pharm. 2023 Apr 3.

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## REFERENCES

- [1]. Anastasia Loktev, et al. Development of Fibroblast Activation Protein-Targeted Radiotracers with Improved Tumor Retention. J Nucl Med. 2019 Oct;60(10):1421-1429.
- [2]. Giesel FL, et al. 68Ga-FAPI PET/CT: Biodistribution and Preliminary Dosimetry Estimate of 2 DOTA-Containing FAP-Targeting Agents in Patients with Various Cancers. J Nucl Med. 2019 Mar;60(3):386-392.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: [tech@MedChemExpress.com](mailto:tech@MedChemExpress.com)

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