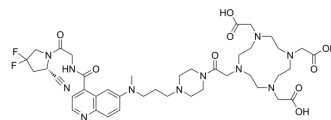


## FAPI-46

<b>Cat. No.:</b>	HY-137331
<b>CAS No.:</b>	2374782-04-2
<b>Molecular Formula:</b>	C <sub>41</sub> H <sub>57</sub> F <sub>2</sub> N <sub>11</sub> O <sub>9</sub>
<b>Molecular Weight:</b>	885.96
<b>Target:</b>	FAP
<b>Pathway:</b>	Immunology/Inflammation
<b>Storage:</b>	4°C, sealed storage, away from moisture * In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



### SOLVENT & SOLUBILITY

<b>In Vitro</b>	H <sub>2</sub> O : 100 mg/mL (112.87 mM; Need ultrasonic)					
	DMSO : 100 mg/mL (112.87 mM; Need ultrasonic)					
	<b>Preparing Stock Solutions</b>	<b>Solvent</b>	<b>Mass</b>	<b>1 mg</b>	<b>5 mg</b>	<b>10 mg</b>
		<b>Concentration</b>				
		<b>1 mM</b>		1.1287 mL	5.6436 mL	11.2872 mL
<b>5 mM</b>			0.2257 mL	1.1287 mL	2.2574 mL	
	<b>10 mM</b>		0.1129 mL	0.5644 mL	1.1287 mL	
Please refer to the solubility information to select the appropriate solvent.						
<b>In Vivo</b>	1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline) Solubility: ≥ 5.75 mg/mL (6.49 mM); Clear solution  2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: ≥ 5 mg/mL (5.64 mM); Clear solution					

### BIOLOGICAL ACTIVITY

<b>Description</b>	FAPI-46 is a quinoline-based fibroblast activation protein (FAP)-targeted radiotracer. FAPI-46 has higher tumor uptake and prolonged tumor accumulation. FAPI-46 can be used for tumor imaging of a multitude of different cancers <sup>[1][2]</sup> .
<b>IC<sub>50</sub> &amp; Target</b>	fibroblast activation protein (FAP) <sup>[1]</sup>
<b>In Vitro</b>	FAPI-46 (1-24 h) robustly binds to human FAP in human FAP-expressing HT-1080 cells <sup>[1]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.
<b>In Vivo</b>	FAPI-46 (i.v.) shows improved ratios of tumor to liver, kidney, and brain uptake, resulting in an enhanced image contrast for PET imaging <sup>[1]</sup> .

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

## REFERENCES

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- [1]. Loktev A, et, al. Development of Fibroblast Activation Protein-Targeted Radiotracers with Improved Tumor Retention. J Nucl Med. 2019 Oct;60(10):1421-1429.
- [2]. Moon ES, et, al. Targeting fibroblast activation protein (FAP): next generation PET radiotracers using squaramide coupled bifunctional DOTA and DATA 5m chelators. EJNMMI Radiopharm Chem. 2020 Jul 29;5(1):19.
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**Caution: Product has not been fully validated for medical applications. For research use only.**

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