hCYP3A4 Fluorogenic substrate 1

Cat. No.: HY-155002

CAS No.: 186299-00-3

Molecular Formula: $C_{19}H_{12}FNO_2$

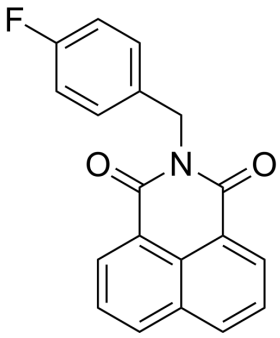
Molecular Weight: 305.3

Target: Cytochrome P450

Pathway: Metabolic Enzyme/Protease

Storage:

Powder	-20°C	3 years
	4°C	2 years
In solvent	-80°C	6 months
	-20°C	1 month



SOLVENT & SOLUBILITY

In Vitro

DMSO : 12.5 mg/mL (40.94 mM; ultrasonic and warming and heat to 60°C)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.2755 mL	16.3773 mL	32.7547 mL
	5 mM	0.6551 mL	3.2755 mL	6.5509 mL
	10 mM	0.3275 mL	1.6377 mL	3.2755 mL

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

BIOLOGICAL ACTIVITY

Description

hCYP3A4 Fluorogenic substrate 1 is a potrnt hCYP3A4 fluorogenic substrate with an K_m value of 0.36 μM. hCYP3A4 Fluorogenic substrate 1 can be used for cell and in vivo imaging[1].

IC_{50} & Target

CYP3A4
0.36 μM (Km)

In Vitro

hCYP3A4 Fluorogenic substrate 1 (compound F8) (20 μM; 30 min) shows brightly fluorescent signals at the green channel in both living Hep3B2 cells and Huh-7 cells[1].

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

In Vivo

hCYP3A4 Fluorogenic substrate 1 (10 mg/kg; i.v.) can be used for imaging in vivo[1].

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

Animal Model:	Male Sprague-Dawley rats[1]

Dosage:	10 mg/kg
Administration:	I.v.
Result:	Can be used as a probe substrate offers a highly efficient and easy-to-use approach for screening and characterizing hCYP3A4 inhibitors or time-dependent inactivators, which strongly facilitates hCYP3A4-mediated DDI studies.

REFERENCES

[1]. He RJ, et al. Rationally Engineered CYP3A4 Fluorogenic Substrates for Functional Imaging Analysis and Drug-Drug Interaction Studies. J Med Chem. 2023 May 25;66(10):6743-6755.

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