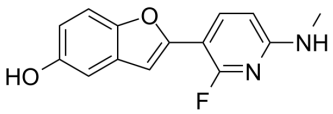
AZD4694

Cat. No.:	HY-113938
CAS No.:	1054629-49-0
Molecular Formula:	$C_{14}H_{11}FN_2O_2$
Molecular Weight:	258.25
Target:	Amyloid-β
Pathway:	Neuronal Signaling
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 : 100 mg/mL (387.22 mM; Need ultrasonic)

Preparing Stock Solutions	Solvent / Mass / Concentration	1 mg	5 mg	10 mg
	1 mM	3.8722 mL	19.3611 mL	38.7222 mL
	5 mM	0.7744 mL	3.8722 mL	7.7444 mL
	10 mM	0.3872 mL	1.9361 mL	3.8722 mL

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

In Vivo

1. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (9.68 mM); Clear solution
2. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (9.68 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

AZD4694 (NAV4694), a fluorinated β-amyloid (Aβ) plaque neuroimaging PET radioligand, shows high affinity for Aβ fibrils (K_d = 2.3 nM)[1].

IC_{50} & Target

Kd: 2.3 nM (Aβ)

In Vivo

Administration of unlabeled AZD4694 to rat showed that it has a pharmacokinetic profile consistent with good PET radioligands, it quickly entered and rapidly cleared from normal rat brain tissue[1].

AZD4694 (4 mL/kg; intravenous injection) inhibits [^{3}H]AZD2184 binding (1 nM) in a concentration-dependent manner, with a Ki of 23.1 nM, in postmortem brain sections from AD patients[1].

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

Animal Model:	Male Sprague–Dawley rats (275-300 g)[1]
Dosage:	4 mL/kg
Administration:	I.v.
Result:	Inhibited [^{3}H]AZD2184 binding in a concentration-dependent manner, with a Ki of 23.1 nM, in postmortem brain sections from AD patients.

REFERENCES

[1]. Juréus A, Swahn BM, Sandell J, et al. Characterization of AZD4694, a novel fluorinated Abeta plaque neuroimaging PET radioligand. J Neurochem. 2010;114(3):784-794.

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