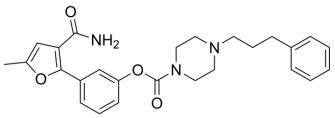
FAAH-IN-7

Cat. No.:	HY-151919
Molecular Formula:	$C_{26}H_{29}N_3O_4$
Molecular Weight:	447.53
Target:	FAAH
Pathway:	Metabolic Enzyme/Protease; Neuronal Signaling
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

FAAH-IN-7 is a reversible and potent FAAH inhibitor with an IC_{50} value of 8.29 nM. FAAH-IN-7 suppresses oxidative stress in 1321N1 astrocytes and exhibits notable neuroprotective effect in ex vivo neuroinflammation model[1].

In Vitro

FAAH-IN-7 (compound 4e) (10 nM-30 μM; 24 h) has no cytotoxicity against mouse fibroblasts NIH3T3 and human astrocytes cell line 1321N1 with K_i values >10 μM[1].

FAAH-IN-7 (10 nM, 100 nM; 30 min) inhibits FAAH through a reversible mechanism in the case of rapid dilution. The rapid dilution disrupts the equilibrium between the inhibitor and the enzyme, resulting in enzymatic activity recovery[1].

FAAH-IN-7 (1 nM-1 μM; 24 h) significantly reduces ROS production starting from the 10 nM concentration in 1321N1 astrocytes[1].

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

Cell Viability Assay[1]

Cell Line:	1321N1 human astrocytes
Concentration:	10 nM, 100 nM, 1 μM, 10 μM, and 30 μM
Incubation Time:	24 hours
Result:	Showed no cytotoxicity against 1321N1 human astrocytes.

In Vivo

FAAH-IN-7 (compound 4e) shows anti-inflammatory effects in inflammation-induced neurodegenerated ex vivo cultures of rat hippocampal explants[1].

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

REFERENCES

[1]. Papa A, et al. Development of potent and selective FAAH inhibitors with improved drug-like properties as potential tools to treat neuroinflammatory conditions. Eur J Med Chem. 2022 Nov 25;246:114952.

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

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