TH1834 dihydrochloride

Cat. No.: HY-123604A

CAS No.: 2108830-09-5

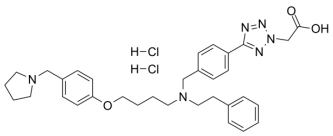
Molecular Formula: $C_{33}H_{42}Cl_2N_6O_3$

Molecular Weight: 641.63

Target: Histone Acetyltransferase; Apoptosis

Pathway: Epigenetics; Apoptosis

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

H_2O : 100 mg/mL (155.85 mM; Need ultrasonic)
DMSO : ≥ 100 mg/mL (155.85 mM)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	1.5585 mL	7.7927 mL	15.5853 mL
5 mM	0.3117 mL	1.5585 mL	3.1171 mL
10 mM	0.1559 mL	0.7793 mL	1.5585 mL

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

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 25 mg/mL (38.96 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.08 mg/mL (3.24 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.08 mg/mL (3.24 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.08 mg/mL (3.24 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

TH1834 dihydrochloride is a specific Tip60 (KAT5) histone acetyltransferase inhibitor. TH1834 dihydrochloride induces apoptosis and increases DNA damage in breast cancer. TH1834 dihydrochloride does not affect the activity of related histone acetyltransferase MOF. Anticancer activity[1].

In Vitro

TH1834 dihydrochloride (0-500 μM; 1 hour; MCF7 cells) treatment significantly reduces the viability of MCF7 cells[1].

TH1834 dihydrochloride (0-500 μM; 1 hour; MCF7 cells) treatment highly significant increase in cytotoxicity[1].
TH1834 dihydrochloride (500 μM; 1 hour; MCF7 cells) treatment induces caspase 3 activation in MCF7 cells[1].
TH1834 dihydrochloride significantly inhibits Tip60 activity in vitro and treating cells with TH1834 results in apoptosis and increased unrepaired DNA damage in breast cancer[1].

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

Cell Viability Assay[1]

Cell Line:	MCF7 cells
Concentration:	0 μM, 0.5 μM, 5 μM, 50 μM and 500 μM
Incubation Time:	1 hour
Result:	Significantly reduced the viability of MCF7 cells.

Cell Cytotoxicity Assay[1]

Cell Line:	MCF7 cells
Concentration:	0 μM, 0.5 μM, 5 μM, 50 μM and 500 μM
Incubation Time:	1 hour
Result:	Highly significant increase in cytotoxicity at all concentrations used.

Western Blot Analysis[1]

Cell Line:	MCF7 cells
Concentration:	500 μM
Incubation Time:	1 hour
Result:	Marked caspase 3 activation was observed in MCF7 cells in an independent assay.

REFERENCES

[1]. Gao C, et al. Rational design and validation of a Tip60 histone acetyltransferase inhibitor. Sci Rep. 2014 Jun 20;4:5372.

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