

Catalog Number: CM04181

产品信息

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CM04181

CAS号:
2243736-45-8

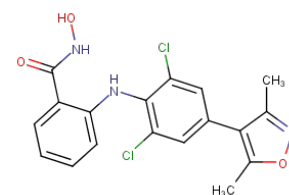
分子式:
C₁₈H₁₅Cl₂N₃O₃

主要靶点:
Apoptosis|Others

主要通路:
凋亡

分子量:
392.24

溶解度:
DMSO:1 mg/mL (2.55 mM)



靶点活性

FTO:2.6 μM (IC50)

体外活性

FB23-2直接与FTO结合，选择性抑制FTO的m6A去甲基化酶活性。模拟FTO耗尽，FB23-2显著抑制人急性髓性白血病(AML)细胞系和原代AML细胞的增殖，并促进其分化/凋亡 *in vitro*[1]。

体内活性

FB23-2在异种移植小鼠中显著抑制人类AML细胞系和原代细胞的进展[1]。

动物实验

The NSGS mice were bred and subjected to the xeno-transplantation model. For the AML mouse model, 0.2 × 10⁶ MONOMAC6 cells were directly transplanted into NSGS mice via tail vein. After 10 days, FB23-2 (2 mg/kg/day) and DMSO vehicle were intraperitoneally injected into the mice for a continuous 10 days. The mice were euthanized by CO₂ inhalation if they exhibited classical AML symptoms including hunched posture, paralysis, and reduced body weight. Meanwhile, the PB, spleen, and liver samples were collected for further analysis[1].

细胞实验

Quantitation of FB23 and FB23-2 in AML cells: NB4 and MONOMAC6 cells were treated with 10 μM FB23 or FB23-2 for 24 hr, respectively. Viable cells were distinguished with 0.1% trypan blue, counted and then harvested with PBS by several washings. Cells were diluted into 100 μL with 50% (v/v) water/methanol and followed by several shock freeze-thaw cycles. The supernatants were collected for analysis. The Ultimate 3000 system coupled with a TSQ Quantiva mass spectrometer was applied to determine the cellular concentration of compound FB23 and FB23-2. Analytes were separated on a XSELECT[®] HSS T3 column (100 mm × 3.0 mm, 2.5 μm). The mobile phases used for elution were (A) 0.1% (v/v) formic acid/water and (B) 0.1% (v/v) formic acid/acetonitrile. The mass spectrometer was operated in the negative MRM mode. Parent-to-product transitions were m/z 375.1 → 339.1, 375.1 → 298.1 for FB23, and m/z 390.3 → 318.0, 390.3 → 289.9 for FB23-2, respectively[1].

储存

Powder: -20°C for 3 years | In solvent: -80°C for 1 year | Shipping with blue ice.