Chemical Properties

Product Name: Scriptaid
Cas No.: 287383-59-9
M.Wt.: 326.35
Formula: C18H18N2O4

Chemical Name: 6-(1,3-dioxobenzo[de]isoquinolin-2-yl)-N-hydroxyhexanamide
Canonical SMILES: C1=CC2=C3C(=C1)C(=O)N(C(=O)C3=CC=C2)CCCCCC(=O)NO

Solubility: Soluble in DMSO > 10 mM
Storage: Store at -20°C

General tips: For obtaining a higher solubility, please warm the tube at 37°C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shopping Condition: Evaluation sample solution: ship with blue ice
All other available size: ship with RT, or blue ice upon request

Biological Activity

Targets: HDAC
Pathways: DNA Damage/DNA Repair >> HDAC

Description:

Scriptaid, identified by a high-throughput transcriptional screening, is a novel histone deacetylase (HDAC) with specific potency towards class I HDACs (50% inhibition concentration IC50 values of 0.6 μM for HDAC1 and HDAC3 and 1 μM for HDAC8). Scriptaid shares a similar chemical structure with several others hydroxamic acid-containing HDAC inhibitors (such as TSA and nullscript), which consists of a hydroxamic acid group, an aliphatic chain and an aromatic cap at the other end. Scriptaid has the potential to be used for the treatment of glioblastoma multiforme (GBM), one of the most challenging solid cancers to treat, for its ability to induce apoptosis in
glioblastoma cells.

Reference:

Protocol

Cell experiment:

Cell lines: MDA-MB-231 cell lines

Preparation method: The solubility of this compound in DMSO is >10 mM. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Reacting conditions: 48 h; 1.0 mg/mL

Applications: Based on MTT assay a concentration of 1mg/ml of Scriptaid was chosen for the experiments in MDA-MB-231. MDA-MB-231 cells were treated with 0.1, 0.5, and 1.0 mg/mL of Scriptaid for 48 h. A dose-dependent increase in α-ER mRNA was detectable with concentrations as low as 0.1mg/ml in MDA-MB-231. Maximal α-ER mRNA was detected at 1.0mg/ml.

Animal experiment [3]:

Animal models: B6D2F1 male and female mice; SCNT embryos

Dosage form: 250 nM; immersion

Applications: Treating SCNT embryos with HDAC inhibitor, scriptaid, all the important inbred mouse strains can be cloned, such as C57BL/6, C3H/He, DBA/2, and 129/Sv. Normal development, reproductive ability, and genotype in cloned inbred mice produced by scriptaid treatment. Scriptaid has also lower toxicity for embryo development.
that treatment of ICSI-fertilized embryos with 250 nM scriptaid, for up to 48 h, did not inhibit in vitro or in vivo development.

Other notes

Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Reference:

Product Validation

Cancer cell line survival curve with the treatment of Scriptaid

TGFbeta/Smad4 pathway is affected by Scriptaid

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet.
Most ApexBio products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Short-term storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.