

Product Data Sheet

Chemical Properties

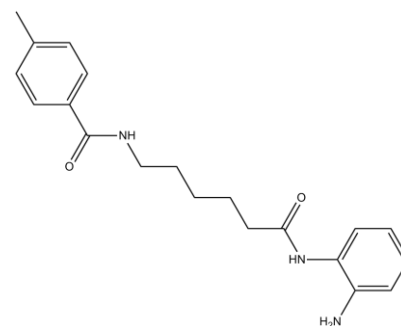
Product Name: RG2833

Cas No.: 1215493-56-3

M.Wt: 339.43

Formula: C₂₀H₂₅N₃O₂

Synonyms: RG
2833;RG-2833;RGFP-109;RGFP
109;RGFP 109



Chemical Name: N-[6-(2-aminoanilino)-6-oxohexyl]-4-methylbenzamide

Canonical SMILES: CC1=CC=C(C=C1)C(=O)NCCCCC(=O)NC2=CC=CC=C2N

Solubility: ≥ 16.95 mg/mL in DMSO

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 : DNA Damage/DNA Repair

Pathways: HDAC

Description:

RG2833 is a histone deacetylase (HDAC) inhibitor.

In the neuronal cell, RG2833 increased Friedreich Ataxia (FXN) mRNA and protein levels, with concomitant changes in the epigenetic state of the gene. In PBMCs, RG2833 inhibited HDAC expression and increased H3K9 acetylation, and increased FXN mRNA in blood from patients. In iPSC-derived neuronal cell model, plasma RG2833 (5µM) inhibited maximal deacetylase and

upregulated FXN. The result showed a good correlation between increase in FXN transcript and inhibition of deacetylase activity, providing evidence that the mechanism of action of RG2833 is through deacetylation. [1]

Reference:

1.Soragni E, Miao W, Iudicello M et al. Epigenetic therapy for Friedreich ataxia. *Ann Neurol.* 2014 Oct;76(4):489-508.

Protocol

Cell experiment:

Cell lines	Unstimulated peripheral blood mononuclear cells (PBMC) from FRDA Patients.
Preparation method	The solubility of this compound in DMSO is >17mg/mL. 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	
Applications	RG2833 dose-dependently upregulates frataxin mRNA and protein levels in cultures of unstimulated peripheral blood mononuclear cells (PBMC) from FRDA patients.

Animal experiment [3]:

Animal models	GAA knock-in mice
Dosage form	150 mg/kg, subcutaneous injection
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:

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. Shortterm 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.

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