

SEN177

Chemical Properties

CAS No. :	2117405-13-5
Formula:	C ₁₈ H ₁₉ N ₆
Molecular Weight:	338.38
Storage:	Keep away from moisture,Keep away from direct sunlight Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>

Biological Description

Description	SEN177 demonstrates potential utility in investigations involving Huntington's disease and functions as a potent inhibitor of glutaminyl cyclase (QPCT), exhibiting an IC ₅₀ value of 0.013 μM for glutaminyl-peptide cyclotransferase-like (QPCTL). The K _i value of SEN177 for human glutaminyl cyclase (hQC) is 20 nM. SEN177 significantly reduces early-stage mutant HTT oligomerization and decreases the percentage of neurons containing Q80 aggregates. SEN177 is therefore relevant for neurodegenerative disease research, protein aggregation biology, and glutaminyl cyclase-associated molecular pathways.
Targets(IC ₅₀)	Beta Amyloid
In vitro	SEN177 (0.08-50 μM, 0-96 h) results in dose-dependent reduction of SIRPα-FC (5μg/mL) binding in the breast cancer cell line MDA-MB-468[1]. SEN177 (10 μM, 72h) significantly enhances EGFR antibody-induced antibody-dependent cellular phagocytosis (ADCP) in esophageal squamous cell carcinoma cells (Kyse-30) and the breast cancer cell line MDA-MB-468[1]. SEN177 (50 μM, 24 h) decreases mutant HTT aggregate ratio and apoptosis in HeLa cells expressing HTT (Q74) [2].

Solubility Information

Solubility	DMSO: 20 mg/mL (59.11 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
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Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.9553 mL	14.7763 mL	29.5526 mL
5 mM	0.5911 mL	2.9553 mL	5.9105 mL
10 mM	0.2955 mL	1.4776 mL	2.9553 mL
50 mM	0.0591 mL	0.2955 mL	0.5911 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Baumann N, et al. Enhancement of epidermal growth factor receptor antibody tumor immunotherapy by glutaminyl cyclase inhibition to interfere with CD47/sigdoi: 10.1111/cas.14999. Epub 2021 Jun 18.

Jimenez-Sanchez M, et al. siRNA screen identifies QPCT as a druggable target for Huntington's disease. Nat Chem Biol. 2015 May;11(5):347-354.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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