bio-techne
TOCRIS

Print Date: Dec 2nd 2024

Certificate of Analysis

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Product Name: **Dynasore** **Catalog No.: 2897** **Batch No.: 4**

CAS Number: 304448-55-3

IUPAC Name: 3-Hydroxynaphthalene-2-carboxylic acid (3,4-dihydroxybenzylidene)hydrazide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{18}H_{14}N_2O_4.H_2O$

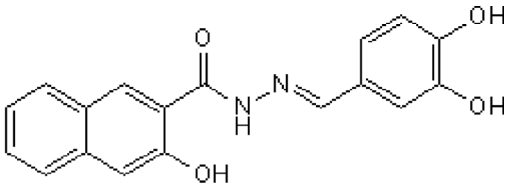
Batch Molecular Weight: 340.34

Physical Appearance: Off White solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.8% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	63.53	4.74	8.23
Found	63.51	4.77	8.33

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Description:

Dynasore is a non-competitive reversible inhibitor of dynamin 1, dynamin 2 and mitochondrial dynamin (Drp1) GTPase activity. Dynasore blocks endocytic pathways dependent on dynamin and inhibits cell spreading and migration of BSC1 cells. Dynasore attenuates motor symptoms in an animal model of Parkinson's disease and in a cellular model of Alzheimer's disease it reduces tau protein aggregation and internalization.

Physical and Chemical Properties:

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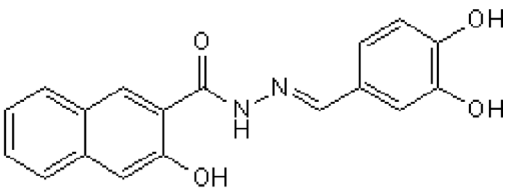
Batch Molecular Weight: 340.34

Physical Appearance: Off White solid

Minimum Purity: ≥99%

Batch Molecular Structure:



Storage: Store at -20°C

CAUTION - This product is light sensitive and we recommend that the solid material and any solutions obtained are protected from exposure to light.

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. *Unless contradicted by product-specific protocols or instructions, our standard recommendations apply:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Feng *et al* (2021) Inhibition of dynamin-related protein 1 ameliorates the mitochondrial ultrastructure via PINK1 and Parkin in the mice model of Parkinson's disease. Eur.J.Pharmacol. ***907*** 174262. PMID: 34146589.

Soares *et al* (2021) PIKfyve activity is required for lysosomal trafficking of tau aggregates and tau seeding. J.Biol.Chem. ***296***. PMID: 33831417.

Macia *et al* (2006) Dynasore, a cell-permeable inhibitor of Dynamin. Develop.Cell ***10*** 839.

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