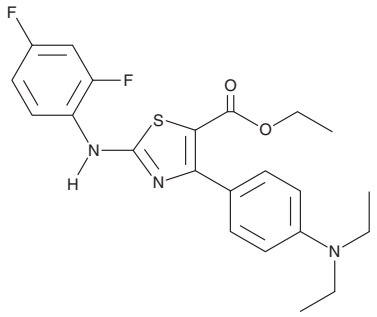
PRODUCT INFORMATION

Dynarrestin

Item No. 35527

CAS Registry No.:	2222768-84-3
Formal Name:	4-[4-(diethylamino)phenyl]-2-[(2,4-difluorophenyl)amino]-5-thiazolecarboxylic acid, ethyl ester
MF:	$C_{22}H_{23}F_2N_3O_2S$
FW:	431.5
Purity:	≥95%
UV/Vis.:	λ_{max}: 236, 281, 324, 367 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Dynarrestin is supplied as a solid. A stock solution may be made by dissolving the dynarrestin in the solvent of choice, which should be purged with an inert gas. Dynarrestin is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of dynarrestin in these solvents is approximately 14 and 20 mg/ml, respectively. Dynarrestin is also slightly soluble in ethanol.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of dynarrestin can be prepared by directly dissolving the solid in aqueous buffers. The solubility of dynarrestin in PBS (pH 7.2) is approximately 0.3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

Dynarrestin is an inhibitor of dynein 1 and -2.[1] It inhibits dynein 1-dependent microtubule gliding (IC_{50} = 5 µM) and dynein 2-dependent intraflagellar transport in mIMCD-3 inner medullary collecting duct cells when used at concentrations of 0.125 and 1.25 µM. Dynarrestin decreases the number of cells in metaphase, anaphase, or telophase in asynchronous COS-7 cells (IC_{50} = 6.25 µM). It inhibits the proliferation of primary *Ptch*$^{+/-}$ murine medulloblastoma cells (IC_{50} = 0.068 µM) and the expression of *GLI1* in KYSE-180 esophageal squamous cell carcinoma cells stimulated with the smoothened (Smo) agonist purmorphamine (Item No. 10009634; IC_{50} = 0.21 µM).

Reference

1. Höing, S., Yeh, T.-Y., Baumann, M., *et al.* Dynarrestin, a novel inhibitor of cytoplasmic dynein. *Cell Chem. Biol.* **25(4)**, 357-369 (2018).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM