

# Certificate of Analysis

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**Product Name:** Dynarrestin

**Catalog No.:** 6526

**Batch No.:** 1

CAS Number: 2222768-84-3

IUPAC Name: Ethyl 4-(4-(diethylamino)phenyl)-2-((2,4-difluorophenyl)amino)thiazole-5-carboxylate

## 1. PHYSICAL AND CHEMICAL PROPERTIES

**Batch Molecular Formula:** C<sub>22</sub>H<sub>23</sub>F<sub>2</sub>N<sub>3</sub>O<sub>2</sub>S

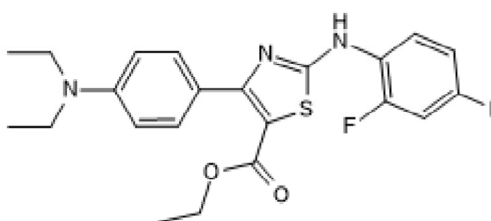
**Batch Molecular Weight:** 431.5

**Physical Appearance:** Pale yellow solid

**Solubility:** DMSO to 100 mM

**Storage:** Store at -20°C

**Batch Molecular Structure:**



## 2. ANALYTICAL DATA

**TLC:** R<sub>f</sub> = 0.3 (Ethyl acetate:Petroleum ether [1:9])

**HPLC:** Shows 98.7% purity

**<sup>1</sup>H NMR:** Consistent with structure

**Mass Spectrum:** Consistent with structure

**Microanalysis:**

	Carbon Hydrogen Nitrogen		
Theoretical	61.24	5.37	9.74
Found	61.12	5.34	9.72

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

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**Description:**

Dynarrestin is a dynein inhibitor. Inhibits hedgehog signaling in vitro ( $IC_{50}$  = 0.22  $\mu$ M). Exhibits reversible inhibition of cytoplasmic dynein 1-dependent microtubule binding and cytoplasmic dynein 2-dependent intraflagellar transport. Inhibits tumor cell proliferation in a mouse medulloblastoma model.

**Physical and Chemical Properties:**

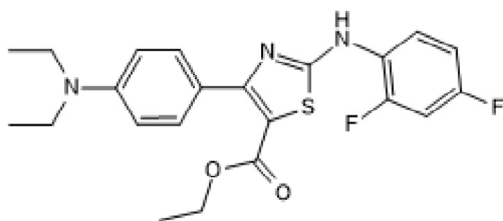
Batch Molecular Formula:  $C_{22}H_{23}F_2N_3O_2S$

Batch Molecular Weight: 431.5

Physical Appearance: Pale yellow solid

**Minimum Purity:**  $\geq 98\%$

**Batch Molecular Structure:**



**Storage:** Store at  $-20^{\circ}C$

**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

The compound reportedly undergoes slow decomposition when stored in DMSO, even at  $-20^{\circ}C$ . It is recommended that single use solutions are prepared and used on the day of preparation.

**Stability and Solubility Advice:**

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a  $45-60^{\circ}C$  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  $-20^{\circ}C$  or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**

Höing *et al* (2018) Dynarrestin, a novel inhibitor of cytoplasmic dynein. *Cell Chem.Biol.* **25** 357. PMID: 29396292 .

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