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: \( \text{C}_{22}\text{H}_{23}\text{F}_{2}\text{N}_{3}\text{O}_{2}\text{S} \).
   Batch Molecular Weight: 431.5
   Physical Appearance: Yellow solid
   Solubility: DMSO to 100 mM
   Storage: Store at -20°C
   Batch Molecular Structure:  

   ![Molecular Structure Image]

2. ANALYTICAL DATA

   TLC:  
   \( R_f = 0.3 \) (Ethyl acetate:Petroleum ether [1:9])
   HPLC: Shows 99.3% purity
   \(^1\text{H}\) NMR: Consistent with structure
   Mass Spectrum: Consistent with structure

   Microanalysis:
   
<table>
<thead>
<tr>
<th></th>
<th>Carbon</th>
<th>Hydrogen</th>
<th>Nitrogen</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theoretical</td>
<td>61.24</td>
<td>5.37</td>
<td>9.74</td>
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<tr>
<td>Found</td>
<td>61.12</td>
<td>5.34</td>
<td>9.72</td>
</tr>
</tbody>
</table>

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use
Description:
Dynarrestin 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:** $C_{22}H_{22}F_2N_3O_2S$
- **Batch Molecular Weight:** 431.5
- **Physical Appearance:** Yellow solid

**Minimum Purity:** >98%

**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**

The compound reportedly undergoes slow decomposition when stored in DMSO, even at -20°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°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. Our standard recommendations are:
- **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:**