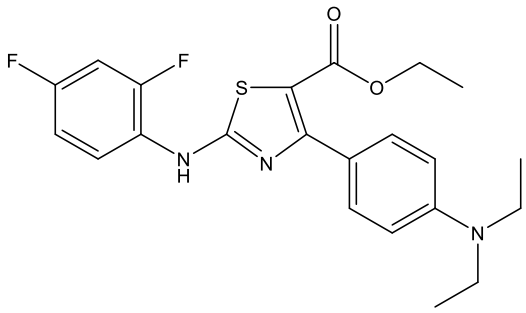
Catalog #10-4196

Dynarrestin

CAS 2222768-84-3

Ethyl 4-(4-(diethylamino)phenyl)-2-((2,4-difluorophenyl)amino)thiozole-5-carboxylate

Lot # FBS4005



Dynarrestin is a reversible inhibitor of cytoplasmic dyneins 1 and 2.[1] It inhibits dynein 1-dependent microtubule binding and motility without affecting ATP hydrolysis as well as dynein 2-dependent intraflagellar transport of the cargo IFT88 and flux of Smoothened within cilia without interfering with ciliogenesis. Dynarrestin suppresses hedgehog-dependent proliferation of neuronal precursors and tumor cells. It binds protein tyrosine phosphatase interacting protein 51 (PTPIP51) leading to increased MAPK activation and complete blockade of Akt signaling in Her2 positive breast cancer cells (SKBR3).[2]

1) Höing *et al.* (2018) *Dynarrestin, a Novel Inhibitor of Cytoplasmic Dynein;* Cell Chem. Biol. **25** 357
2) Dietel *et al.* (2019) *Crosstalks of the PTPIP51 interactome revealed in Her2 amplified breast cancer cells by the novel small molecule LDC3/Dynarrestin;* PLoS One **14** e0216642

PHYSICAL DATA

Molecular Weight:	431.50
Molecular Formula:	$C_{22}H_{23}F_2N_3O_2S$
Purity:	>98% HPLC
	NMR: (Conforms)
Solubility:	DMSO (at least 40 mg/ml)
Physical Description:	Pale pink/purple solid
Storage and Stability:	Store as supplied at -20°C for up to 2 years from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 3 months.

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