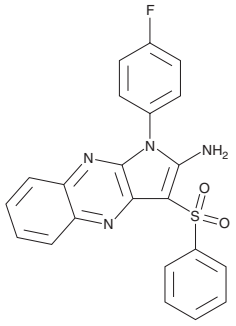
PRODUCT INFORMATION

CAY10602

Item No. 10009796



CAS Registry No.:	374922-43-7
Formal Name:	1-(4-fluorophenyl)-3-(phenylsulfonyl)-1H-pyrrolo[2,3-b]quinoxalin-2-amine
MF:	$C_{22}H_{15}FN_4O_2S$
FW:	418.4
Purity:	≥95%
UV/Vis.:	λ_{max}: 216, 257, 361 nm
Supplied as:	A crystalline 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

CAY10602 is supplied as a crystalline solid. A stock solution may be made by dissolving the CAY10602 in the solvent of choice, which should be purged with an inert gas. CAY10602 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of CAY10602 in these solvents is approximately 20 mg/ml.

CAY10602 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CAY10602 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CAY10602 has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

CAY10602 is an activator of sirtuin 1 (SIRT1).[1] It inhibits LPS-induced TNF-α release in THP-1 cells when used at concentrations of 20 and 60 µM. CAY10602 (5 µM) decreases the expression of *GPX4*, *SLC7A11*, and *SLC3A2*, as well as increases the levels of iron and malondialdehyde (MDA), in A549 lung and MDA-MB-231 and Hs 578T breast cancer cells.[2] It reduces apoptosis and lipid accumulation induced by oleic acid (Item Nos. 90260 | 24659) in HepG2 cells when used at a concentration of 20 µM.[3]

References

1. Nayagam, V.M., Wang, X., Tan, Y.C., *et al.* SIRT1 modulating compounds from high-throughput screening as anti-inflammatory and insulin-sensitizing agents. *J. Biomol. Screen.* **11(8)**, 959-967 (2006).
2. Sui, S., Zhang, J., Xu, S., *et al.* Ferritinophagy is required for the induction of ferroptosis by the bromodomain protein BRD4 inhibitor (+)-JQ1 in cancer cells. *Cell Death Dis.* **10**, 331 (2019).
3. Jiang, Y., Chen, D., Gong, Q., *et al.* Elucidation of SIRT-1/PGC-1α-associated mitochondrial dysfunction and autophagy in nonalcoholic fatty liver disease. *Lipids Health Dis.* **20(1)**, 40 (2021).

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