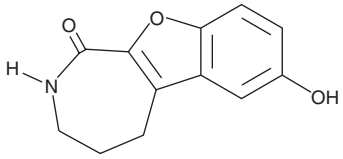
PRODUCT INFORMATION

CID-755673

Item No. 15924

CAS Registry No.:	521937-07-5
Formal Name:	2,3,4,5-tetrahydro-7-hydroxy-1H-benzofuro[2,3-c]azepin-1-one
MF:	$C_{12}H_{11}NO_3$
FW:	217.2
Purity:	≥98%
UV/Vis.:	λ_{max}: 218, 276, 321 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

CID-755673 is supplied as a crystalline solid. A stock solution may be made by dissolving the CID-755673 in the solvent of choice, which should be purged with an inert gas. CID-755673 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of CID-755673 in ethanol is approximately 0.1 mg/ml and approximately 20 mg/ml in DMSO and DMF.

CID-755673 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CID-755673 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. CID-755673 has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Protein kinase D (PKD) is a serine/threonine protein kinase that is activated by diacylglycerol, commonly downstream of PKC signaling.[1] The three human PKD isoforms target a variety of proteins to alter cell proliferation, survival, invasion, and protein transport. CID-755673 is a small molecule inhibitor of PKD (IC_{50}s = 182, 280, 227 nM for PKD1, 2, and 3, respectively) that exhibits higher selectivity for PKD over Akt, polo-like kinase 1, CDK activating kinase, CAMKII and three different PKC isoforms (IC_{50}s range from 15 to > 50 µM).[2] At 25 µM, CID-755673 has been shown to inhibit prostate cancer cell proliferation, cell migration, and invasion.[2]

References

1. Rozengurt, E., Rey, O., and Waldron, R.T. Protein kinase D signaling. *J. Biol. Chem.* **280(14)**, 13205-13208 (2005).
2. Sharlow, E.R., Giridhar, K.V., LaValle, C.R., *et al*. Potent and selective disruption of protein kinase D functionality by a benzoxoloazepinolone. *J. Biol. Chem.* **283(48)**, 33516-33526 (2008).

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