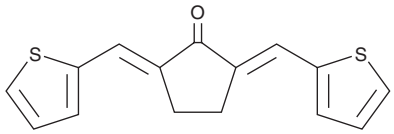
PRODUCT INFORMATION

CCT007093

Item No. 19992

CAS Registry No.: 176957-55-4
Formal Name: 2E,5E-*bis*(2-thienylmethylene)-cyclopentanone
MF: $C_{15}H_{12}OS_2$
FW: 272.4
Purity: ≥98%
UV/Vis.: λ_{max}: 255, 388 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

CCT007093 is supplied as a crystalline solid. A stock solution may be made by dissolving the CCT007093 in the solvent of choice, which should be purged with an inert gas. CCT007093 is soluble in organic solvents such as DMSO and dimethyl formamide (DMF). The solubility of CCT007093 in these solvents is approximately 1 mg/ml.

CCT007093 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, CCT007093 should first be dissolved in DMF and then diluted with the aqueous buffer of choice. CCT007093 has a solubility of approximately 0.33 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

CCT007093 is an inhibitor of protein phosphatase 1D (PPM1D, also known as PP2Cδ and WIP1; IC_{50} = 8.4 µM), which is encoded by a putative oncogene that is amplified in multiple cancer types.[1] It does not inhibit PPM1A. CCT007093 selectively inhibits the growth of cancer cells that overexpress PPM1D, including MCF-7, KPL-1, and MCF-3B cells, as well as certain ovarian clear cell carcinoma cells.[1,2] CCT007093 has been used to elucidate the mechanism by which PPM1D drives growth in medulloblastoma cells.[3]

References

1. Rayter, S., Elliott, R., Travers, J., *et al*. A chemical inhibitor of PPM1D that selectively kills cells overexpressing PPM1D. *Oncogene* **27(8)**, 1036-1044 (2008).
2. Tan, D. S. P., Labmbros, M. B. K., Rayter, S., *et al*. PPM1D is a potential therapeutic target in ovarian clear cell carcinomas. *Clin. Cancer. Res* **15(7)**, 2269-2280 (2009).
3. Buss, M. C., Read, T.-A., Schniederjan, M. J., *et al*. HDM2 promotes WIP1-mediated medulloblastoma growth. *Neuro. Oncol*. **14(4)**, 440-458 (2012).

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent *via* email to your institution.

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CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM