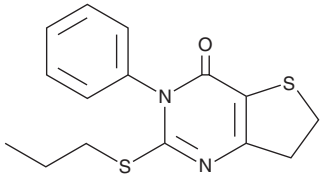
PRODUCT INFORMATION

BC-11-38

Item No. 20167

CAS Registry No.:	686770-80-9
Formal Name:	6,7-dihydro-3-phenyl-2-(propylthio)-thieno[3,2-d]pyrimidin-4(3H)-one
MF:	$C_{15}H_{16}N_2OS_2$
FW:	304.4
Purity:	≥98%
UV/Vis.:	λ_{max}: 343 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

BC-11-38 is supplied as a crystalline solid. A stock solution may be made by dissolving the BC-11-38 in the solvent of choice. BC-11-38 is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of BC-11-38 in ethanol is approximately 5 mg/ml and approximately 30 mg/ml in DMSO and DMF.

BC-11-38 is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, BC-11-38 should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. BC-11-38 has a solubility of approximately 0.33 mg/ml in a 1:2 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

BC-11-38 is a potent and selective phosphodiesterase (PDE) 11 inhibitor (IC_{50}s = 0.28 µM and >100 µM for PDE11 and PDE1-10, respectively).[1] Gene association studies suggested that PDE11 was involved in adrenal function, and in H295R human adrenocortical cells, BC-11-38 increased cAMP and cortisol levels and activating transcription factor 1 (ATF1) phosphorylation.[1-3]

References

1. Ceyhan, O., Birsoy, K., and Hoffman, C.S. Identification of biologically active PDE11-selective inhibitors using a yeast-based high-throughput screen. *Chem. Biol.* **19(1)**, 155-163 (2012).
2. Horvath, A., Giatzakis, C., Robinson-White, A., *et al*. Adrenal hyperplasia and adenomas are associated with inhibition of phosphodiesterase 11A in carriers of PDE11A sequence variants that are frequent in the population. *Cancer Res.* **66(24)**, 11571-11575 (2006).
3. Libé, R., Horvath, A., Cezzosi, D., *et al*. Frequent phosphodiesterase 11A gene (PDE11A) defects in patients with Carney complex (CNC) caused by PRKAR1A mutations: PDE11A may contribute to adrenal and testicular tumors in CNC as a modifier of the phenotype. *J. Clin. Endocrinol. Metab.* **96(1)**, E208-E214 (2011).

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.

WARRANTY AND LIMITATION OF REMEDY
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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