

Product Data Sheet

Product Name: KL201
Cat. No.: GC61415

Chemical Properties

Cas. No. 302939-48-6

SMILES O=C(NC1=C(C2=C(CCCC2)S3)C3=NC=N1)C4=CC=CC=C4Br

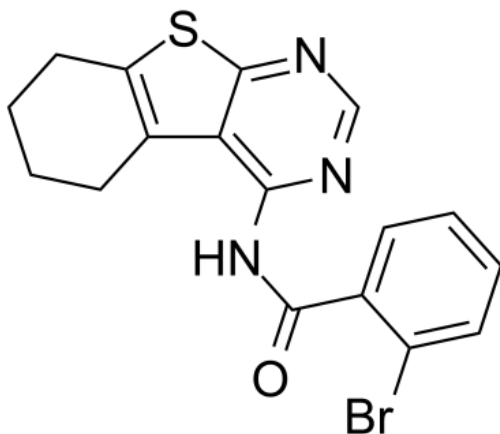
Formula $C_{17}H_{14}BrN_3OS$ M.Wt 388.28

Solubility DMSO: 250 mg/mL (643.87 mM) Storage Store at -20°C

General tips For obtaining a higher solubility, please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT, or blue ice upon request.

Structure



Caution: Product has not been fully validated for medical applications. For research use only.

Tel: (909) 407-4943 Fax: (626) 353-8530 E-mail: tech@glpbio.com

Address: 10292 Central Ave. #205, Montclair, CA, USA

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Background

KL201 a circadian clock modulator, is a isoform-selective cryptochrome 1 (CRY1) stabilizer. KL201 has no stabilizing effect on CRY2. KL201 lengthens the period of circadian rhythms in cells and tissues[1].

KL201 causes dose-dependent lengthening of circadian period in Bmal1-dLuc reporter cells, and in cells with another circadian reporter Per2-dLuc. KL201 suppresses the intensity of Per2-dLuc reporter much more than that of Bmal1-dLuc, without affecting cellular viability[1]. KL201 binds to CRY1 in overlap with FBXL3, a subunit of ubiquitin ligase complex, and the effect of KL201 is blunted by knockdown of FBXL3[1]. KL201 lengthened circadian period and suppressed the intensity of Per2::Luc knockin reporter in mouse lung primary explants[1].

[1]. Simon Miller, et al. An Isoform-Selective Modulator of Cryptochrome 1 Regulates Circadian Rhythms in Mammals. Cell Chem Biol. 2020 Sep 17;27(9):1192-1198.e5.

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