
Product Data Sheet

Product Name: L82-G17
Cat. No.: GC68436

Chemical Properties

Cas. No. 92285-87-5

Formula $C_{11}H_9ClN_4O_2$

M.Wt 264.67

Solubility DMSO : 125 mg/mL (472.29 mM; Need ultrasonic) 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

Background

L82-G17 is an uncompetitive **DNA ligase I** (Lig I)-selective inhibitor. L82-G17 inhibits the third step of the ligation reaction, phosphodiester bond formation. L82-G17 can be used as a probe of the catalytic activity^[1].

L82-G17 (200 μM, 30 min) has selective uncompetitive inhibitory effect for Lig^[1].

L82-G17 (0-100 μM) increases LigI binding to non-ligatable nicked DNA binding^[1].

L82-G17 inhibits step 3 of the ligation reaction, phosphodiester bond formation^[1].

L82-G17 (0-100 μM) inhibits DNA synthesis, cell viability and s induces DNA damage^[1].

Cell Viability Assay^[1]

Cell Line: HeLa cells

Concentration: 0-30 μM

Incubation Time: 5 days

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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Result: Reduced cell number by about 70% at 20 μ M.

Cell Proliferation Assay^[1]

Cell Line: CH12F3 WT and CH12F3 δ / δ cells

Concentration: 0-100 μ M

Incubation Time: 72 h

Result: Had great effect on the proliferation and survival of the parental CH12F3 cells.

[1]. Timothy R L Howes, et al. Structure-activity relationships among DNA ligase inhibitors: Characterization of a selective uncompetitive DNA ligase I inhibitor. DNA Repair (Amst). 2017 Dec;60:29-39.

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