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**Product Data Sheet**

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Product Name: DB1976  
Cat. No.: GC39627

**Chemical Properties**

Cas. No. 1557397-51-9

SMILES N=C(C1=CC=C2N=C(C3=CC=C(C4=NC5=CC=C(C(N)=N)C=C5N4)[Se]3)NC2=C1)N

Formula C<sub>20</sub>H<sub>16</sub>N<sub>8</sub>Se M.Wt 447.35

Solubility Soluble in DMSO 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**

DB1976 is a selenophene analog of DB270 and a potent and cell-permeable fully efficacious transcription factor PU.1 inhibitor. DB1976 potently inhibits PU.1 binding (IC<sub>50</sub> of 10 nM) and strongly inhibits the PU.1/DNA complex (with high DB1976-AB affinity, K<sub>D</sub> of 12 nM) in vitro. DB1976 has apoptosis-inducing effect [1][2][3].

[1]. Munde M, et al. Structure-dependent inhibition of the ETS-family transcription factor PU.1 by novel heterocyclic diamidines. *Nucleic Acids Res.* 2014 Jan;42(2):1379-90. [2]. Stephens DC, et al. Pharmacologic efficacy of PU.1 inhibition by heterocyclic dications: a mechanistic analysis. *Nucleic Acids Res.* 2016 May 19;44(9):4005-13. [3]. Antony-Debré I, et al. Pharmacological inhibition of the transcription factor PU.1 in leukemia. *J Clin Invest.* 2017 Dec 1;127(12):4297-4313.

**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