Certificate of Analysis

Product Name: **dBET1** **Catalog No.: 6327** **Batch No.: 3**

CAS Number: 1799711-21-9

IUPAC Name: (6*S*)-4-(4-Chlorophenyl)-*N*-[4-[[2-[[2-(2,6-dioxo-3-piperidinyl)-2,3-dihydro-1,3-dioxo-1*H*-isoindol-4-yl]oxy]acetyl]amino]butyl]-2,3,9-trimethyl-6*H*-thieno[3,2-*f*][1,2,4]triazolo[4,3-*a*][1,4]diazepine-6-acetamide

1. PHYSICAL AND CHEMICAL PROPERTIES

Batch Molecular Formula: $C_{38}H_{37}ClN_8O_7S.2¼H_2O$

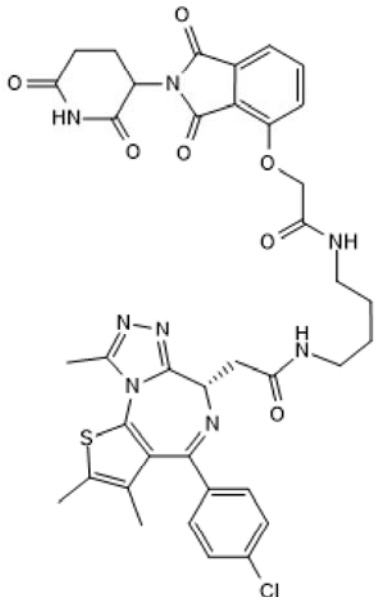
Batch Molecular Weight: 825.8

Physical Appearance: Off-white solid

Solubility: DMSO to 100 mM

Storage: Store at -20°C

Batch Molecular Structure:



2. ANALYTICAL DATA

HPLC: Shows 99.3% purity

^{1}H NMR: Consistent with structure

Mass Spectrum: Consistent with structure

Microanalysis:

	Carbon	Hydrogen	Nitrogen
Theoretical	55.27	5.07	13.57
Found	55.02	4.65	13.49

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Description:

dBET1 is a degrader (PROTAC®) comprising BET bromodomain antagonist (+)-JQ1 (Cat.No. 4499) conjugated to a cereblon E3 ubiquitin ligase ligand. Depletes BET bromodomains in cancer cell lines in vitro (EC_{50} = 430 nM in breast cancer cells) and induces apoptosis. Delays tumor growth and downregulates MYC in mice bearing human AML xenografts. PROTAC® is a registered trademark of Arvinas Operations, Inc., and is used under license.

Physical and Chemical Properties:

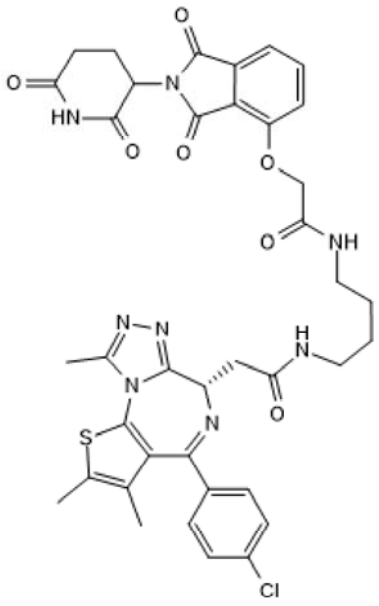
Batch Molecular Formula: $C_{38}H_{37}ClN_8O_7S.2¼H_2O$

Batch Molecular Weight: 825.8

Physical Appearance: Off-white solid

Minimum Purity: ≥98%

Batch Molecular Structure:



Storage: Store at -20°C

Solubility & Usage Info:

DMSO to 100 mM

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

Licensing Information:

Sold under license from Dana-Farber Cancer Institute.

References:

Wurz *et al* (2017) A "click chemistry platform" for the rapid synthesis of bispecific molecules for inducing protein degradation. J.Med.Chem. 10.1021. PMID: 28378579.

Winter *et al* (2015) Drug Development. Phthalimide conjugation as a strategy for *in vivo* target protein degradation. Science ***348*** 1376. PMID: 25999370.