

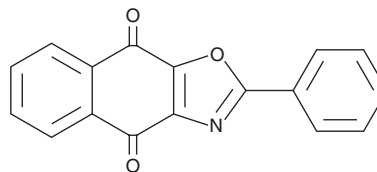
# PRODUCT INFORMATION



**SJB2-043**

Item No. 36605

CAS Registry No.: 63388-44-3  
Formal Name: 2-phenyl-naphth[2,3-d]oxazole-4,9-dione  
MF:  $C_{17}H_9NO_3$   
FW: 275.3  
Purity:  $\geq 98\%$   
UV/Vis.:  $\lambda_{max}$ : 277 nm  
Supplied as: A solid  
Storage:  $-20^{\circ}C$   
Stability:  $\geq 4$  years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

## Laboratory Procedures

SJB2-043 is supplied as a solid. A stock solution may be made by dissolving the SJB2-043 in the solvent of choice, which should be purged with an inert gas. SJB2-043 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of SJB2-043 in these solvents is approximately 1 and 2 mg/ml, respectively.

## Description

SJB2-043 is an inhibitor of the ubiquitin-specific peptidase 1 (USP1) and USP1-associated factor 1 (UAF1) complex (USP1-UAF1 complex;  $IC_{50} = 0.544 \mu M$  for its deubiquitinase activity) and severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) papain-like protease (PL<sup>pro</sup>).<sup>1,2</sup> It reduces the levels of USP1, DNA-binding protein inhibitor 1 (ID-1), ID-2, and ID-3 in K562 chronic myelogenous leukemia (CML) cells when used at concentrations ranging from 0.5 to 10  $\mu M$ , an effect that can be partially blocked by the proteasome inhibitor MG132.<sup>1</sup> SJB2-043 decreases the viability of K562 cells ( $EC_{50} = 1.07 \mu M$ ) and induces apoptosis in K562 cells in a concentration-dependent manner. It also inhibits SARS-CoV-2 PL<sup>pro</sup> with  $IC_{50}$  values of 0.56 and 0.091  $\mu M$  using the fluorogenic substrates Z-LRGG-AMC (Item No. 26641) or ubiquitin-AMC (Ub-AMC), respectively, as PL<sup>pro</sup> substrates.<sup>2</sup>

## References

1. Mistry, H., Hsieh, G., Buhrlage, S.J., *et al.* Small-molecule inhibitors of USP1 target ID1 degradation in leukemic cells. *Mol. Cancer Ther.* **12**(12), 2651-2662 (2013).
2. Cho, C.-C., Li, S.G., Lalonde, T.J., *et al.* Drug repurposing for the SARS-CoV-2 papain-like protease. *ChemMedChem* **17**(1), e202100455 (2022).

### 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](http://WWW.CAYMANCHEM.COM)