

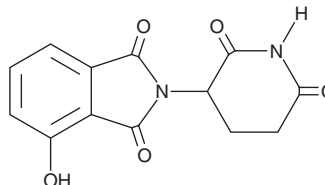
PRODUCT INFORMATION



E3 Ligase Ligand 2

Item No. 36664

CAS Registry No.: 5054-59-1
Formal Name: 2-(2,6-dioxo-3-piperidiny)-4-hydroxy-1H-isoindole-1,3(2H)-dione
Synonym: 4-hydroxy Thalidomide
MF: C₁₃H₁₀N₂O₅
FW: 274.2
Purity: ≥95%
UV/Vis.: λ_{max}: 220 nm
Supplied as: A solid
Storage: -20°C
Stability: ≥4 years



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

Laboratory Procedures

E3 ligase ligand 2 is supplied as a solid. A stock solution may be made by dissolving the E3 ligase ligand 2 in the solvent of choice, which should be purged with an inert gas. E3 ligase ligand 2 is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of E3 ligase ligand 2 in these solvents is approximately 10 and 12 mg/ml, respectively.

Description

E3 ligase ligand 2 is an active metabolite of thalidomide (Item No. 14610) and an intermediate in the synthesis of proteolysis-targeting chimeras (PROTACs) containing thalidomide, a ligand for the E3 ubiquitin ligase cereblon (CRBN), used in targeted protein degradation.^{1,2} E3 ligase ligand 2 is formed from thalidomide via hydroxylation. It decreases the production of TNF-α induced by 12-O-tetradecanoylphorbol 13-acetate (TPA; Item No. 10008014) in THP-1 cells when used at a concentration of 30 μM.³ E3 ligase ligand 2 (333 μM) completely inhibits the proliferation of human umbilical vein endothelial cells (HUVECs). It inhibits VEGF- and FGF2-induced angiogenesis by 14% in a chicken chorioallantoic membrane (CAM) assay *in utero* when administered at a dose of 100 μg/embryo.¹

References

1. Marks, M.G., Shi, J., Fry, M.O., *et al.* Effects of putative hydroxylated thalidomide metabolites on blood vessel density in the chorioallantoic membrane (CAM) assay and on tumor and endothelial cell proliferation. *Biol. Pharm. Bull.* **25(5)**, 597-604 (2002).
2. Robb, C.M., Contreras, J.I., Kour, S., *et al.* Chemically induced degradation of CDK9 by a proteolysis targeting chimera (PROTAC). *Chem. Commun. (Camb.)* **53(54)**, 7577-7580 (2017).
3. Nakamura, T., Noguchi, T., Kobayashi, H., *et al.* Mono- and dihydroxylated metabolites of thalidomide: Synthesis and TNF-α production-inhibitory activity. *Chem. Pharm. Bull. (Tokyo)* **54(12)**, 1709-1714 (2006).

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

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 12/20/2022

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