

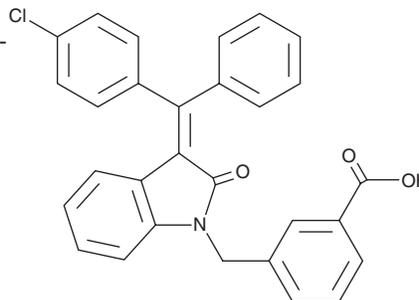
PRODUCT INFORMATION



YLF-466D

Item No. 19475

CAS Registry No.: 1273323-67-3
Formal Name: 3-[[[(3E)-3-[(4-chlorophenyl)phenylmethylene]-2,3-dihydro-2-oxo-1H-indol-1-yl]methyl]-benzoic acid
MF: C₂₉H₂₀ClNO₃
FW: 465.9
Purity: ≥98%
UV/Vis.: λ_{max}: 341 nm
Supplied as: A crystalline 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

YLF-466D is supplied as a crystalline solid. A stock solution may be made by dissolving the YLF-466D in the solvent of choice. YLF-466D is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of YLF-466D in these solvents is approximately 10 mg/ml in ethanol and approximately 30 mg/ml in DMSO and DMF.

YLF-466D is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, YLF-466D should first be dissolved in DMSO and then diluted with the aqueous buffer of choice. YLF-466D has a solubility of approximately 0.25 mg/ml in a 1:3 solution of DMSO:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

YLF-466D is an orally bioavailable activator of AMP-activated protein kinase (AMPK), an enzyme involved in regulation of cellular energy homeostasis.¹ YLF-466D activates AMPK at a concentration of 150 μM in platelets. It inhibits platelet aggregation induced by thrombin, ADP, and collagen (IC₅₀s = 84, 55, and 87 μM, respectively) and inhibits aggregation of whole blood. YLF-466D leads to dose-dependent glucose uptake in L6 myotubes and, at a dose of 150 mg/kg, improves glucose tolerance in two mouse models of diabetes.^{2,3}

References

1. Liu, Y., Park, J.-M., Oh, S.-J., *et al.* Antiplatelet effect of a newly developed AMP-activated protein kinase activator YLF-466D. *Eur. J. Pharmacol.* **760**, 81-87 (2015).
2. Yu, L.-F., Lo, Y.-Y., Su, M.-B., *et al.* Development of novel alkene oxindole derivatives as orally efficacious AMP-activated protein kinase activators. *ACS Med. Chem. Lett.* **4**(5), 475-480 (2013).
3. Li, Y.-Y., Yu, L.-F., Zhang, L.-N., *et al.* Novel small-molecule AMPK activator orally exerts beneficial effects on diabetic db/db mice. *Toxicol. Appl. Pharmacol.* **273**(2), 325-334 (2013).

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.

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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