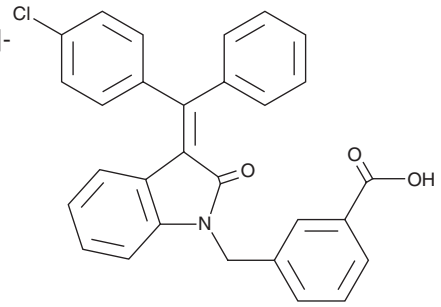
PRODUCT INFORMATION

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:	$C_{29}H_{20}ClNO_3$
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 (IC_{50}s = 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).

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