

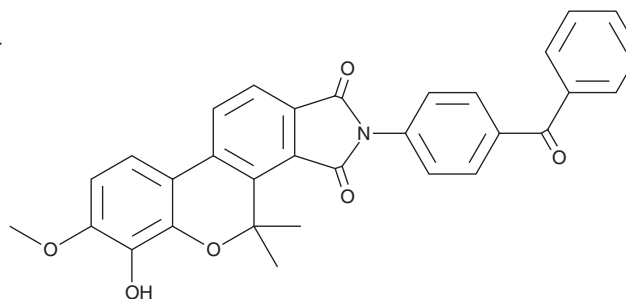
PRODUCT INFORMATION



Ampkinone

Item No. 10631

CAS Registry No.: 1233082-79-5
Formal Name: 2-(4-benzoylphenyl)-6-hydroxy-7-methoxy-4,4-dimethyl-[1]benzopyrano[3,4-e]isoindole-1,3(2H,4H)-dione
MF: C₃₁H₂₃NO₆
FW: 505.5
Purity: ≥95%
UV/Vis.: λ_{max}: 259, 280, 387 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

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

Description

AMP-activated protein kinase (AMPK) plays a role in energy metabolism and glucose homeostasis by monitoring the ratio of ATP to AMP. AMPK stimulates glucose uptake in skeletal muscle when activated during muscle contraction and exercise by the phosphorylation of threonine 172 (Thr¹⁷²) by LKB19 and Ca²⁺/calmodulin-dependent kinase kinase. Ampkinone is a small molecule activator of AMPK. It has been shown to stimulate functional activation of AMPK via the phosphorylation at Thr¹⁷² in cultured L6 muscle cells with an EC₅₀ value of 4.3 μM, enhancing glucose uptake by 3.2-fold.¹ When given to diet-induced obese mice, 10 mg/kg ampkinone up-regulated the activity of AMPK in liver and muscle, enhancing insulin sensitivity and increasing the oxidation of adipose tissues.¹

Reference

1. Oh, S., Kim, S.J., Hwang, J.H., *et al.* Antidiabetic and antiobesity effects of ampkinone (6f), a novel small molecule activator of AMP-activated protein kinase. *J. Med. Chem.* **53**(20), 7405-7413 (2010).

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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