

Catalog	Unit
TBI1171-5MG	5 mg
TBI1171-25MG	25 mg

Product Details

Formal Name: 4-Hydroxy-3-(2'-hydroxy-[1,1'-biphenyl]-4-yl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-5-carbonitrile

Molecular Formula: C₂₀H₁₂N₂O₃S

Formula Weight: 360.39

CAS Number: 844499-71-4

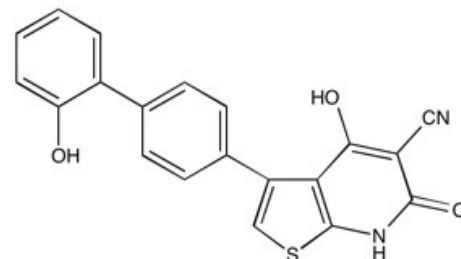
Purity: >98%

Formulation: powder

Solubility: Soluble in DMSO (up to 30 mg/ml) or in Ethanol (up to 5 mg/ml)

Storage: -20°C

Stability: ≥ 1 year.



Applications

AMPK activator

Functions

A potent and reversible AMP-activated protein kinase (AMPK) allosteric activator. Activates AMPK by binding to the β and γ subunits and not the AMP binding site. EC₅₀=0.8 μ M for purified rat liver AMPK and inhibits fatty acid biosynthesis in rat hepatocytes IC₅₀=3.2 μ M. Inhibits the rate of whole-body fatty acid oxidation, decreases body weight gain, reduces plasma and liver triglycerides and lowers plasma glucose in ob/ob mice². Inhibits adipocyte differentiation. Prevents transcriptional activation of Oct4 and establishes a metabolic barrier to induced pluripotent stem cell reprogramming. Synergizes with AICAR⁵. Cell permeable.

Application Procedures

First dissolved in DMSO (up to 30 mg/ml) or in Ethanol (up to 5 mg/ml), then diluted to aqueous buffer. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months.

For research use only.