

A-769662

AMPK activator

A-769662 is a potent activator of AMP-activated protein kinase (AMPK), with an EC50 of 0.8 μ M in vitro. It specifically targets AMPK heterotrimers containing the β 1 subunit.

Key features and applications include:

- **High Selectivity:** Selectively activates AMPK β 1 subunit-containing heterotrimers.
- **Potency:** Demonstrates strong activation with an EC50 of 0.8 μ M.
- **Stimulate Fatty Acid Oxidation:** Promotes fatty acid oxidation in various cell types.
- **Inhibit Adipocyte Differentiation:** Reduces differentiation of preadipocytes into adipocytes.
- **Enhance Glucose Uptake:** Increases glucose uptake in skeletal muscle cells.
- **Promote Endothelial Cell Survival:** Supports endothelial cell survival during metabolic stress.

Relevant disease states include:

- **Type 2 Diabetes:** Improves glucose homeostasis and reduces plasma glucose levels.
- **Obesity:** Inhibits adipogenesis, making it useful in obesity research.
- **Metabolic Syndrome:** Addresses key components of metabolic syndrome by activating AMPK.
- **Cardiovascular Diseases:** Enhances endothelial cell survival, which is beneficial in cardiovascular research.

- GMP format available

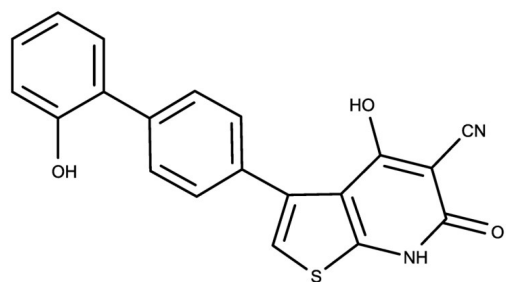
Ordering Information

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ENZ-CHM360-0025	25mg
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Manuals, SDS & CofA

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Handling & Storage

Use/Stability	As indicated on product label or CoA when stored as recommended. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months.
Handling	Keep container tightly closed in a dry and well-ventilated place.
Short Term Storage	-20°C
Long Term Storage	-20°C
Shipping	Ambient Temperature

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	4-Hydroxy-3-(2'-hydroxy-[1,1'-biphenyl]-4-yl)-6-oxo-6,7-dihydrothieno[2,3-b]pyridine-5-carbonitrile
Appearance	Beige solid.
CAS	844499-71-4
Couple Target	AMPK
Couple Type	Activator
Formula	$C_{20}H_{12}N_2O_3S$
Identity	Determined by NMR.
MW	360.39
Purity	≥98% (HPLC)
Solubility	Soluble in DMSO (up to 30 mg/ml) or in ethanol (up to 5 mg/ml).



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