Cat No. 46-D13

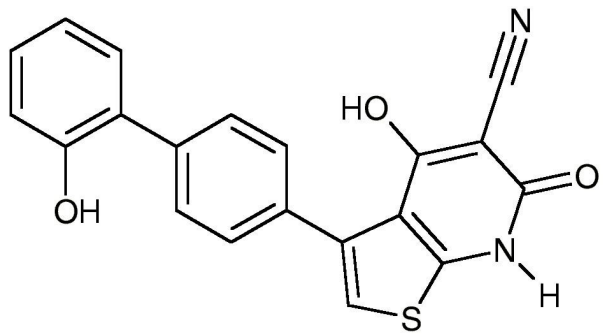
A769662

10mg

For research purposes only

A769662 is a potent and reversible small molecule that activates AMP-activated protein kinase (AMPK). The activation of AMPK inhibits mTOR (mammalian target of rapamycin) signaling, which is a positive effector of cell growth, proliferation and survival. A769662 has been shown to inhibit the Na^+K^+-ATPase at higher concentrations. It also inhibits the differentiation of adipocytes.

TECHNICAL INFORMATION



Other Names: 6,7-Dihydro-4-hydroxy-3-(2'-hydroxyl[1,1'-biphenyl]-4-yl)-6-oxo-thieno[2,3-b] pyridine-5-carbonitrile

Chemical Formula: $C_{20}H_{12}N_2O_3S$

CAS Number: 844499-71-4

Molecular Weight: 360.39

Purity: >98%

Appearance: White Powder

Solubility: DMSO

STORAGE AND HANDLING

Storage: Store at 4°C and protected from light. Following reconstitution, store aliquots at -20°C.

Stability: Stock solutions stable at -20°C for up to 2 years.

Shipping Conditions: Shipped at room temperature.

PRODUCT USE

For a 10mM concentrated stock solution, reconstitute the compound by adding 2775 µl of DMSO to the entire contents of the vial. For most cells, the maximum tolerance to DMSO is <0.5%.

REFERENCES

1. Zhou et al. (2009) Inhibitory effects of A-769662, a novel activator of AMP-activated protein kinase, on 3T3-L1 adipogenesis. Biol Pharm Bull. 32(6):993-8.
2. Scott et al. (2008) Theinopyridone drugs are selective activators of AMP-activated protein kinase beta1-containing complexes. Chem Biol. 15 (11): 1220-30.
3. Morizone et al. (2011) AMP-activated protein kinase suppresses matrix metalloproteinase-9 expression in mouse embryonic fibroblasts. J Biol Chem 286(18): 16030-8.
4. Sid et al. (2010) Stimulation of human and mouse erythrocyte Na(+)-K(+)-2Cl(-) cotransport by osmotic shrinkage does not involve AMP-activated protein kinase, but is associated with STE20/SPS1-related proline/alanine-rich kinase activation. J Physiol. 588(13) 2315-28.