

Store at
-20°C
#64839**A-769662**

5 mg



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Background

A-769662 is a potent activator of AMP-activated protein kinase (AMPK) by allosterically binding to the β and γ subunits and by inhibiting dephosphorylation of AMPK on Thr172 (1). This small molecule selectively targets AMPK heterotrimers containing the $\beta 1$ subunit (2). A-769662 has been shown to stimulate purified rat liver AMPK ($EC_{50} = 0.8 \mu M$) and inhibit fatty acid synthesis in rat hepatocytes ($IC_{50} = 3.2 \mu M$) (3). Treatment of adipocytes with A-769662 inhibits cell differentiation, leads to over-activation of AMPK, and inactivation of acetyl-CoA carboxylase (ACC), making this an interesting compound when studying obesity (4).

Molecular Formula

$C_{20}H_{12}N_2O_3S$

Molecular Weight

360.4 g/mol

Purity

>98%

CAS

844499-71-4

Solubility

Soluble in DMSO at 30 mg/ml or ethanol at 5 mg/ml with slight warming.

Storage

Store lyophilized at $-20^{\circ}C$, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, store at $-20^{\circ}C$ and use within 3 months to prevent loss of potency. *Aliquot to avoid multiple freeze/thaw cycles.*

Directions for Use

A-769662 is supplied as a lyophilized powder. For a 15 mM stock, reconstitute 5 mg of powder in 924.9 μl of DMSO. Working concentrations and length of treatment can vary depending on the desired effect.

Background References

1. Sanders, M.J. et al. (2007) *J Biol Chem* 282, 32539-48.
2. Scott, J.W. et al. (2008) *Chem Biol* 15, 1220-30.
3. Cool, B. et al. (2006) *Cell Metab* 3, 403-16.
4. Zhou, Y. et al. (2009) *Biol Pharm Bull* 32, 993-8.

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