

Store at
-20°C**A-769662****#64839**

5 mg


Cell Signaling
TECHNOLOGY®

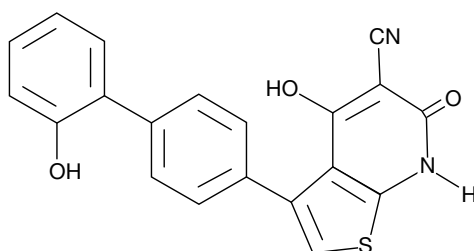
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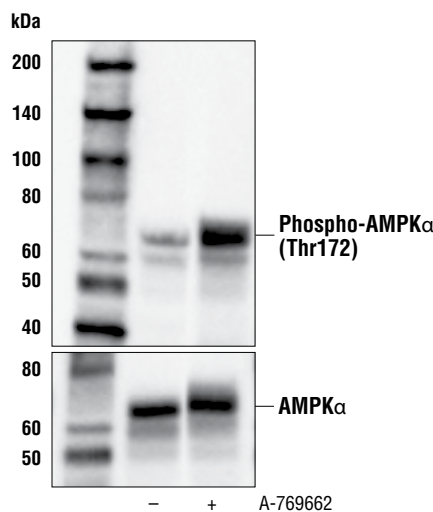
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Background: A-769662 is a potent activator of AMP-activated protein kinase (AMPK) by allosterically binding to the β and γ subunits and by inhibiting dephosphorylation of AMPK on Thr172 (1). This small molecule selectively targets AMPK heterotrimers containing the β 1 subunit (2). A-769662 has been shown to stimulate purified rat liver AMPK (EC_{50} = 0.8 μ M) and inhibit fatty acid synthesis in rat hepatocytes (IC_{50} = 3.2 μ 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: C₂₀H₁₂N₂O₃S

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.


Western blot analysis of extracts from PC-3 cells, untreated (-) or treated with A-769662 (1 mM, 1 hr; +), using Phospho-AMPK α (Thr172) (40H9) Rabbit mAb #2535 (upper) or AMPK α Antibody #2532 (lower).

Storage: Store lyophilized at -20°C, desiccated. In lyophilized form, the chemical is stable for 24 months. Once in solution, store at -20°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 μ l 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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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide **Species Cross-Reactivity:** H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.