

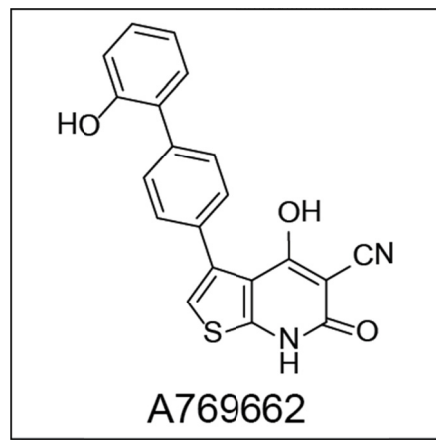


## Product Specification Sheet

**Product Name:** A769662  
**Catalog Number:** C2769-10 (powder)  
**Package Size:** 10 mg

**Technical information:**

**Chemical Formula:** C<sub>20</sub>H<sub>12</sub>N<sub>2</sub>O<sub>3</sub>S  
**CAS #:** 844499-71-4  
**Molecular Weight:** 360.39  
**Purity:** >98%  
**Formulation:** White or off-white powder



**Solubility:** Soluble in DMSO up to 50 mM

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

**Storage:** Store solid powder at 4°C desiccated, Store DMSO solution at -20°C.

**Handling:** • For C2769-10 (powder), add 2.78 mL of DMSO to make 10 mM solution.

**Biological Activity:** A769662 is a potent, reversible AMP-activated protein kinase (AMPK) activator. It activates AMPK through the  $\beta$  subunit carbohydrate-binding module and the  $\gamma$  subunit but not the AMP-binding sites. A769662 stimulated partially purified rat liver AMPK with an EC<sub>50</sub> of 0.8  $\mu$ M and inhibited fatty acid synthesis in primary rat hepatocytes with an IC<sub>50</sub> of 3.2  $\mu$ M. A769662 could be a useful tool compound for both cell survival and cell proliferation.

- Reference:**
1. Scott, J.W., et al. Thienopyridone drugs are selective activators of AMP-activated protein kinase  $\beta$ 1-containing complexes. *Chem. Biol.* 15: 1220-1230 (2008).
  2. Cool, B., et al. Identification and characterization of a small molecule AMPK activator that treats key components of type 2 diabetes and the metabolic syndrome. *Cell Metab.* 3: 403-416 (2006).
  3. Huang, X. et al. Important role of the LKB1-AMPK pathway in suppressing tumorigenesis in PTEN-deficient mice. *Biochem J.* 412:211-221 (2008).

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