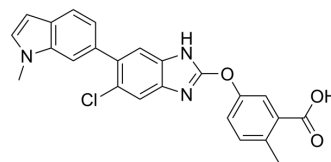


AMPK-IN-1

Cat. No.:	HY-120904
CAS No.:	1219739-95-3
Molecular Formula:	C ₂₄ H ₁₈ ClN ₃ O ₃
Molecular Weight:	431.87
Target:	AMPK
Pathway:	Epigenetics; PI3K/Akt/mTOR
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description	AMPK-IN-1 is an activator of AMPK (EC ₅₀ : 551 nM for isoform α2β2γ1). AMPK-IN-1 leads to eEF2 phosphorylation in a mTORC1-independent way ^{[1][2][3]} .								
IC₅₀ & Target	AMPK α2β2γ1 551 nM (EC50)								
In Vitro	<p>AMPK-IN-1 (Compound 991) (5 μM, 60 min) induces phosphorylation of acetyl-coenzyme A carboxylase (ACC) in mouse epitrochlearis muscle <i>ex vivo</i>^[1].</p> <p>AMPK-IN-1 (0-10 μM, 60 min) induces eEF2 phosphorylation in MEF cells, and is mainly mTORC1-independent^[1]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.</p> <p>Western Blot Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>Mouse epitrochlearis muscle</td> </tr> <tr> <td>Concentration:</td> <td>5 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>60 min</td> </tr> <tr> <td>Result:</td> <td>Increased phosphorylation of acetyl-coenzyme A carboxylase (ACC).</td> </tr> </table>	Cell Line:	Mouse epitrochlearis muscle	Concentration:	5 μM	Incubation Time:	60 min	Result:	Increased phosphorylation of acetyl-coenzyme A carboxylase (ACC).
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Concentration:	5 μM								
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Result:	Increased phosphorylation of acetyl-coenzyme A carboxylase (ACC).								

REFERENCES

- [1]. Ngoei KRW, et al. Structural Determinants for Small-Molecule Activation of Skeletal Muscle AMPK α2β2γ1 by the Glucose Importagog SC4. *Cell Chem Biol.* 2018 Jun 21;25(6):728-737.e9.
- [2]. Cao Y, et al. Novel cyclic benzimidazole derivatives useful anti-diabetic agents. Patent. WO2010036613.
- [3]. Johanns M, et al. Direct and indirect activation of eukaryotic elongation factor 2 kinase by AMP-activated protein kinase. *Cell Signal.* 2017 Aug;36:212-221.

Caution: Product has not been fully validated for medical applications. For research use only.

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