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Produktinformation



Forschungsprodukte & Biochemikalien



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Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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Lieferung & Zahlungsart

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Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

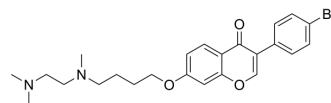
mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

DBI-2

| | |
|---------------------------|---|
| Cat. No.: | HY-162516 |
| CAS No.: | 2939087-00-8 |
| Molecular Formula: | C ₂₄ H ₂₉ BrN ₂ O ₃ |
| Molecular Weight: | 473.4 |
| Target: | AMPK; Mitochondrial Metabolism |
| Pathway: | Epigenetics; PI3K/Akt/mTOR; Metabolic Enzyme/Protease |
| Storage: | Please store the product under the recommended conditions in the Certificate of Analysis. |



BIOLOGICAL ACTIVITY

| | | |
|--------------------|---|---|
| Description | DBI-2 is an AMPK activator targeting mitochondrial complex I. DBI-2 disrupts the OXPHOS process, and reduces ATP generation in mitochondria. DBI-2 inhibits the proliferation of colorectal cancer (CRC) cells ^[1] . | |
| In Vitro | The IC ₅₀ of DBI-2 to inhibit the proliferation of LS174T cells and HCT116 cells was 1.14 μM and 0.53 μM, respectively ^[1] . DBI-2 (3 μM; 24 h) induces growth suppression by activating AMPK and inhibiting the mTOR and Wnt pathways ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. | |
| | Western Blot Analysis ^[1] | |
| | Cell Line: | LS174T CRC cells |
| | Concentration: | 3 μM |
| | Incubation Time: | 24 h |
| | Result: | Increased p-AMPK and p-ACC, and decreased p-P70S6K and p-S6, and reduced the expression of Axin2 and c-Myc. |
| In Vivo | DBI-2 (40 mg/kg; ip; for 12 days) inhibits tumor growth in colorectal cancer (CRC) xenograft mouse models ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only. | |
| | Animal Model: | RAG1 ^{-/-} γc ⁻ mice injected with S174T cells ^[1] |
| | Dosage: | 40 mg/kg |
| | Administration: | Intraperitoneal administration; for 12 days |
| | Result: | Suppressed of tumor growth. |

REFERENCES

[1]. Lichao Guo, et al. Inhibition of Carbohydrate Metabolism Potentiated by the Therapeutic Effects of Oxidative Phosphorylation Inhibitors in Colon Cancer Cells. *Cancers* (Basel). 2024 Apr 2;16(7):1399.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA