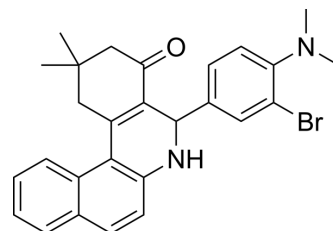


Glutaminase C-IN-1

| | | | |
|---------------------------|--|-------|----------|
| Cat. No.: | HY-12682 | | |
| CAS No.: | 311795-38-7 | | |
| Molecular Formula: | C ₂₇ H ₂₇ BrN ₂ O | | |
| Molecular Weight: | 475.42 | | |
| Target: | Glutaminase | | |
| Pathway: | Metabolic Enzyme/Protease | | |
| Storage: | Powder | -20°C | 3 years |
| | | 4°C | 2 years |
| | In solvent | -80°C | 1 year |
| | | -20°C | 6 months |



SOLVENT & SOLUBILITY

| | | | | | |
|---|--|--------------------------|--------------|------------|------------|
| In Vitro | DMSO : 25 mg/mL (52.59 mM; Need ultrasonic) | | | | |
| | | Solvent Concentration | Mass 1 mg | 5 mg | 10 mg |
| | Preparing Stock Solutions | 1 mM | 2.1034 mL | 10.5170 mL | 21.0340 mL |
| | | 5 mM | 0.4207 mL | 2.1034 mL | 4.2068 mL |
| 10 mM | | 0.2103 mL | 1.0517 mL | 2.1034 mL | |
| Please refer to the solubility information to select the appropriate solvent. | | | | | |
| In Vivo | <ol style="list-style-type: none"> Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline Solubility: 2.5 mg/mL (5.26 mM); Suspended solution; Need ultrasonic Add each solvent one by one: 10% DMSO >> 90% corn oil Solubility: ≥ 2.5 mg/mL (5.26 mM); Clear solution | | | | |

BIOLOGICAL ACTIVITY

| | |
|-------------------------------------|--|
| Description | Glutaminase C-IN-1 (Compound 968) is an allosteric inhibitor of Glutaminase C that inhibits cancer cell growth without affecting their normal cellular counterparts ^{[1][2]} . |
| IC₅₀ & Target | Glutaminase C ^[2] |
| In Vitro | <p>Glutaminase C-IN-1 (Compound 968) (10 μM; 14 d) inhibits cellular transformation in NIH 3T3 cells^[1].</p> <p>?Glutaminase C-IN-1 (10 μM; 6 d) blocks the signaling activity of a specific target of Dbp^[1].</p> <p>?Glutaminase C-IN-1 blocks the transforming activity of human breast cancer cells^[1].</p> <p>?Glutaminase C-IN-1 (10 μM) blocks glutaminolysis in transformed cells^[2].</p> <p>?Glutaminase C-IN-1 preferentially binds to the monomeric state of Glutaminase C^[2].</p> |

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Cell Viability Assay^[1]

| | |
|------------------|---|
| Cell Line: | MDA-MB231 cells, SKBR3 cells, and NIH 3T3 cells |
| Concentration: | 10 μ M |
| Incubation Time: | 5 h |
| Result: | Inhibited cell growth. |

In Vivo

Glutaminase C-IN-1 (Compound 968) (200 μ g/mouse; i.p.; daily for 12 days) reduces tumor volume in mice^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

| | |
|-----------------|---|
| Animal Model: | SCID mice with P493 B lymphoma cells ^[1] |
| Dosage: | 200 μ g/mouse |
| Administration: | Intraperitoneal injection, daily for 12 days |
| Result: | Caused a ~50% reduction in the size of the tumors. |

CUSTOMER VALIDATION

- Cell Metab. 2023 Jan 3;35(1):200-211.e9.
- J Hepatol. 2020 May;72(5):909-923.
- Nat Cancer. 2022 Aug;3(8):945-960.
- Cell Death Discov. 2021 Aug 5;7(1):204.
- Front Biosci (Landmark Ed). 2022, 27(8), 243.

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REFERENCES

[1]. Wang JB, et al. Targeting mitochondrial glutaminase activity inhibits oncogenic transformation. Cancer Cell. 2010 Sep 14;18(3):207-19.

[2]. Stalneck CA, et al. Mechanism by which a recently discovered allosteric inhibitor blocks glutamine metabolism in transformed cells. Proc Natl Acad Sci U S A. 2015 Jan 13;112(2):394-9.

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

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