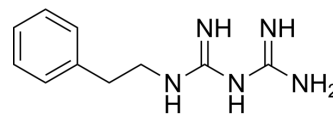


Phenformin

Cat. No.:	HY-16397
CAS No.:	114-86-3
Molecular Formula:	C ₁₀ H ₁₅ N ₅
Molecular Weight:	205.26
Target:	Mitochondrial Metabolism; AMPK; Apoptosis
Pathway:	Metabolic Enzyme/Protease; Epigenetics; PI3K/Akt/mTOR; Apoptosis
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Phenformin (1-phenethylbiguanide) is an orally active antidiabetic and anticancer agent. Phenformin has an incidence of associated lactic acidosis. Phenformin acts through acting AMPK activation and blocking mTOR pathway. Phenformin is also a substrate of P-glycoprotein (P-gp), and an OXPHOS inhibitor. Phenformin induces cancer cell apoptosis^{[1][2]}.

CUSTOMER VALIDATION

- Nat Commun. 2019 Jul 1;10(1):2901.
- Cell Rep Med. 2022 Nov 3;100802.
- Mol Syst Biol. 2023 Jun 1;e11267.
- Biomed Pharmacother. 2020 Aug;128:110216.
- Life Sci. 2019 Jan 15;217:243-250.

See more customer validations on www.MedChemExpress.com

REFERENCES

- [1]. García Rubiño ME, et al. Phenformin as an Anticancer Agent: Challenges and Prospects. *Int J Mol Sci*. 2019 Jul 5;20(13):3316.
- [2]. Yendapally R, et al. A review of phenformin, metformin, and imeglimin. *Drug Dev Res*. 2020 Jun;81(4):390-401.

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

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