

Product Datasheet

Leucettine L41

Catalog No. **BP-02182** · CAS **1112978-84-3** · Form **free base** · Physical state **solid** · Color **Light yellow to yellow** · Version **1.0**
· Revision **2026-09-04**

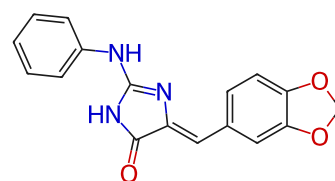
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Target DYRK; CDK; GSK-3; Apoptosis; Reactive Oxygen Species (ROS)	Research area Neurological Disease; Metabolic Disease
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Molecular formula **C₁₇H₁₃N₃O₃**

Molecular weight **307.3034**

STRUCTURE



DESCRIPTION

Leucettine L41 is a potent inhibitor of dual-specificity tyrosine phosphorylation-regulated kinases (DYRKs) and CDC-like kinases (CLKs). Leucettine L41 can also inhibit GSK-3 signaling. Leucettine L41 can inhibit cell apoptosis and ROS production. Leucettine L41 can promote β -cell cell cycle progression, cell proliferation and increase insulin secretion. Leucettine L41 can be used for the researches of neurological disease and metabolic disease, such as Alzheimer's disease (AD) and diabetes .

BIOLOGICAL ACTIVITY

In Vitro

Leucettine L41 (0.01-100 μ M) increases viability and proliferation in MIN6 cells.

Leucettine L41 (5 μ M, 24 h) increases cells in G2/M phase in MIN6 cells.

Leucettine L41 (5 μ M, 24 h) increases insulin and C-peptide production in MIN6 cells.

Leucettine L41 improves insulin secretion in isolated mouse islets.

In Vivo

Leucettine L41 (0.4-4 μ g, i.c.v.) prevents memory deficits and neurotoxicity in A β 25-35-treated mice.

SOLUBILITY

soluble in DMSO

REFERENCES

[1]. Naert G, et al. Leucettine L41, a DYRK1A-preferential DYRKs/CLKs inhibitor, prevents memory impairments and neurotoxicity induced by oligomeric A β 25-35 peptide administration in mice. Eur Neuropsychopharmacol. 2015

Nov;25(11):2170-82.

[2]. Pucelik B, et al. DYRK1A inhibitors leucettines and TGF- β inhibitor additively stimulate insulin production in beta cells, organoids, and isolated mouse islets. PLoS One. 2023 May 17;18(5):e0285208.

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Lot CoA and SDS are separate documents.