

Product Data Sheet

Methyl gerfelin

Cat. No.: HY-124824 CAS No.: 700870-56-0 Molecular Formula: $C_{16}H_{16}O_{6}$

Molecular Weight: 304.29

Target: Glyoxalase (GLO)

Pathway: Metabolic Enzyme/Protease

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Description	Methyl gerfelin inhibits osteoclast differentiation by binding 3 major cellular proteins: glyoxalase 1 (GLO1), sterol binding protein 2 (SCP2), and small glutamine-rich tetratricopeptide repeat containing protein A (SGTA). Methyl gerfelin is a potent GLO1 inhibitor related to the flavonoid class ^{[1][2]} .
IC ₅₀ & Target	$ \label{eq:Glyoxalase 1 (GLO1), Sterol binding protein 2 (SCP2), Small glutamine-rich tetratricopeptide repeat containing protein A (SGTA)^{[1]} $
In Vitro	Methyl gerfelin (0-30 μ M; 72 h) suppresses osteoclastogenesis with an IC $_{50}$ value of 2.8 μ M without affecting the survival and function of mature osteoclasts at the effective concentration ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Kanoh N, et al. Dual structure-activity relationship of osteoclastogenesis inhibitor methyl gerfelin based on TEG scanning. Bioconjug Chem. 2013 Jan 16;24(1):44-52.

[2]. Perez C, et al. Metal-Binding Pharmacophore Library Yields the Discovery of a Glyoxalase 1 Inhibitor. J Med Chem. 2019 Feb 14;62(3):1609-1625.

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

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