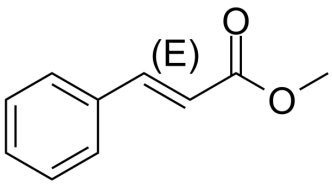
Methyl (E)-cinnamate

Cat. No.:	HY-W067056
CAS No.:	1754-62-7
Molecular Formula:	$C_{10}H_{10}O_2$
Molecular Weight:	162.19
Target:	Others
Pathway:	Others
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



BIOLOGICAL ACTIVITY

Description

Methyl (E)-cinnamate (EMC), a phytochemical constituent isolated from Alpinia katsumadai Hayata, is a natural flavor compound with anti-inflammatory properties. Methyl (E)-cinnamate is widely used in the food and commodity industry[1].

In Vitro

Methyl (E)-cinnamate (0~30 μM; 24 hours; MC3T3-E1 cells) significantly increases the cleaved forms of poly (ADP-ribose) polymerase (PARP) and caspase-3, while it decreases the expression levels of Survivin and Bcl-2, and significantly increases TUNEL-positive and DAPI-stained cells[1].

Methyl (E)-cinnamate (0~30 μM;7 days; MC3T3-E1 cells) suppresses the osteoblast differentiation[1].

Methyl (E)-cinnamate (1~100 μM; 24 and 48 hours; MC3T3-E1 cells) decreases cell survival and induces morphological changes. EMC decreases MAPKs signaling and cell migration[1].

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

Western Blot Analysis[1]

Cell Line:	MC3T3-E1 cells
Concentration:	0~30 μM
Incubation Time:	24 hours
Result:	Significantly increased the cleaved forms of poly (ADP-ribose) polymerase (PARP) and caspase-3, while it decreased the expression levels of Survivin and Bcl-2.

Apoptosis Analysis[1]

Cell Line:	MC3T3-E1 cells
Concentration:	0~30 μM
Incubation Time:	24 hours
Result:	Significantly increased TUNEL-positive and DAPI-stained cells.

Cell Differentiation Assay[1]

Cell Line:	MC3T3-E1 cells

Concentration:	0~30 μM
Incubation Time:	7 days
Result:	Suppressed the osteoblast differentiation.

REFERENCES

[1]. Park KR, et al. A Phytochemical Constituent, (E)-Methyl-Cinnamate Isolated from Alpinia katsumadai Hayata Suppresses Cell Survival, Migration, and Differentiation in Pre-Osteoblasts. Int J Mol Sci. 2020;21(10):3700. Published 2020 May 24.

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

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