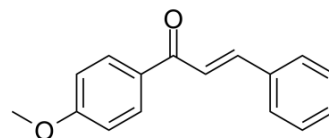


4'-Methoxychalcone

Cat. No.:	HY-128400
CAS No.:	959-23-9
Molecular Formula:	C ₁₆ H ₁₄ O ₂
Molecular Weight:	238.28
Target:	PPAR γ
Pathway:	Cell Cycle/DNA Damage; Epigenetics
Storage:	Please store the product under the recommended conditions in the COA.



BIOLOGICAL ACTIVITY

Description	4'-Methoxychalcone regulates adipocyte differentiation through PPAR γ activation. 4'-Methoxychalcone modulates the expression and secretion of various adipokines in adipose tissue that are involved in insulin sensitivity ^[1] .																
IC₅₀ & Target	PPAR γ ^[1]																
In Vitro	<p>4'-Methoxychalcone (5 μM; 8 days) markedly increases the mRNA expression of adipogenic genes during adipocyte differentiation, PPARγ, aP2, FAS, adiponectin and GluT 4^[1].</p> <p>4'-Methoxychalcone (5 μM; 8 days) reduces the upregulated mRNA expression of IL-6, PAI-1, and MCP-1 by TNF-α in preadipocyte 3T3-L1 cells^[1].</p> <p>4'-Methoxychalcone (5 μM; 0-8 days) causes an increase in PPARγ expression during differentiation, while C/EBPβ protein expression is relatively unaffected^[1].</p> <p>RT-PCR^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>Preadipocyte 3T3-L1 cells</td> </tr> <tr> <td>Concentration:</td> <td>5 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>0 day; 2 days; 4 days; 6 days; 8 days</td> </tr> <tr> <td>Result:</td> <td>Increased the mRNA expression of all adipogenic genes, except GluT1 in adipocyte.</td> </tr> </table> <p>Western Blot Analysis^[1]</p> <table border="1"> <tr> <td>Cell Line:</td> <td>Preadipocyte 3T3-L1 cells</td> </tr> <tr> <td>Concentration:</td> <td>5 μM</td> </tr> <tr> <td>Incubation Time:</td> <td>8 days</td> </tr> <tr> <td>Result:</td> <td>Increased PPARγ expression in adipocyte.</td> </tr> </table>	Cell Line:	Preadipocyte 3T3-L1 cells	Concentration:	5 μ M	Incubation Time:	0 day; 2 days; 4 days; 6 days; 8 days	Result:	Increased the mRNA expression of all adipogenic genes, except GluT1 in adipocyte.	Cell Line:	Preadipocyte 3T3-L1 cells	Concentration:	5 μ M	Incubation Time:	8 days	Result:	Increased PPAR γ expression in adipocyte.
Cell Line:	Preadipocyte 3T3-L1 cells																
Concentration:	5 μ M																
Incubation Time:	0 day; 2 days; 4 days; 6 days; 8 days																
Result:	Increased the mRNA expression of all adipogenic genes, except GluT1 in adipocyte.																
Cell Line:	Preadipocyte 3T3-L1 cells																
Concentration:	5 μ M																
Incubation Time:	8 days																
Result:	Increased PPAR γ expression in adipocyte.																

REFERENCES

[1]. Han Y, et al. Regulatory effects of 4-methoxychalcone on adipocyte differentiation through PPAR γ activation and reverse effect on TNF- α in 3T3-L1 cells. Food Chem Toxicol. 2017 Aug;106(Pt A):17-24.

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA