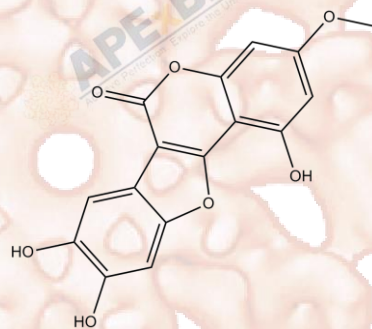


Product Data Sheet

Wedelolactone

Cat. No.:	N2131
CAS No.:	524-12-9
Formula:	C ₁₆ H ₁₀ O ₇
M.Wt:	314.25
Synonyms:	
Target:	Immunology/Inflammation
Pathway:	IkB/IKK
Storage:	Store at -20°C



Solvent & Solubility

insoluble in EtOH; insoluble in H₂O; ≥44.4 mg/mL in DMSO

In Vitro

	Solvent	Mass	1mg	5mg	10mg
Preparing Stock Solutions	Concentration				
	1 mM		3.1822 mL	15.9109 mL	31.8218 mL
	5 mM		0.6364 mL	3.1822 mL	6.3644 mL
	10 mM		0.3182 mL	1.5911 mL	3.1822 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

IKK inhibitor

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	Mouse BALB/c 3T3 cells, mouse splenocytes from C57/B6 mice, HeLa cells
Preparation method:	Soluble in DMSO. General tips for obtaining a higher concentration: Please warm the tube at 37 °C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	1 h, 0~100 μM

In Vivo	Applications:	In cultured mouse BALB/c 3T3 cells, mouse splenocytes and HeLa cells, wedelolactone (0~100 μ M) inhibited LPS-induced caspase-11 expression by inhibiting NF- κ B-mediated transcription through the direct inhibition of IKK. In BALB/c 3T3 cells and/or HeLa cells, wedelolactone inhibited the endogenous IKK activity at 50 μ M, the phosphorylation as well as degradation of I κ B α at 100 μ M, NF- κ B transcriptional activity and the LPS-induced caspase-11 mRNA expression at 60 μ M. In mouse splenocytes, wedelolactone (50 μ M and 100 μ M) also inhibited the secretion of the proinflammatory cytokine IL-1 β , which matured by caspase-11-activated caspase-1.
	Animal experiment	
	Animal models:	Swiss albino male mice
	Dosage form:	Wedelolactone 10 μ M in 200 μ l acetone 1 h before and after every UVB exposure (0.42 J/m ² for 6 h), three weekly for 21 days
	Applications:	On Swiss albino male mouse skin, IKK inhibition by wedelolactone (10 μ M) produced profound effect on several molecular targets of UVB induced cell signaling, including GSH, GST, GPx, LPO, CAT, MPO, NO, cGMP, PKC, NF- κ B, COX-2, VEGF, etc. Wedelolactone prevented the induction of NF- κ B, and thereby limited inflammation and modulated cell environment to a non-persuasive state for neoplastic transformation, and also limited the reactive oxygen species generation following UVB exposure.
	Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

- [1] Kobori M, Yang Z, Gong D, et al. Wedelolactone suppresses LPS-induced caspase-11 expression by directly inhibiting the IKK complex.[J]. Cell Death & Differentiation, 2004, 11(1):123-30.
- [2] Ali F, Khan B A, Sultana S. Wedelolactone mitigates UVB induced oxidative stress, inflammation and early tumor promotion events in murine skin: plausible role of NF κ B pathway[J]. European Journal of Pharmacology, 2016, 786:253-264.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.

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