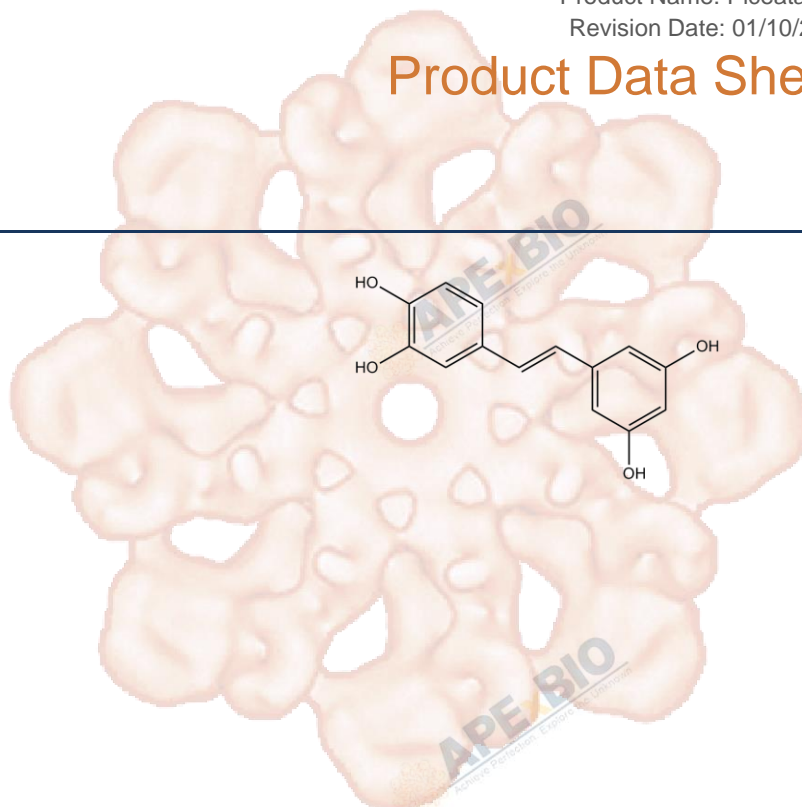


Product Data Sheet

Piceatannol

Cat. No.:	N2031
CAS No.:	10083-24-6
Formula:	C ₁₄ H ₁₂ O ₄
M.Wt:	244.24
Synonyms:	
Target:	Immunology/Inflammation
Pathway:	IκB/IKK
Storage:	Store at -20°C



Solvent & Solubility

insoluble in H₂O; ≥12.2 mg/mL in DMSO; ≥49 mg/mL in EtOH

In Vitro

Preparing Stock Solutions	Solvent	Mass		
		1mg	5mg	10mg
	Concentration			
	1 mM	4.0943 mL	20.4717 mL	40.9433 mL
	5 mM	0.8189 mL	4.0943 mL	8.1887 mL
	10 mM	0.4094 mL	2.0472 mL	4.0943 mL

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

Biological Activity

Shortsummary

p56lck/Syk inhibitor

IC₅₀ & Target

25 μM (ED₅₀) (BJAB Burkitt-like lymphoma cell)

In Vitro

Cell Viability Assay

Cell Line: pcDNA3-FADDdn-transfected BJAB cells

Preparation method: The solubility of this compound in DMSO is >12.2mg/mL. 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: 15 to 100 μM for 36 h.

	Applications:	Piceatannol-induced apoptosis in BJAB cells was mediated by loss of mitochondrial membrane. Piceatannol led to a significant loss of the mitochondrial membrane potential at relatively low concentrations of 15 and 25µM. Piceatannol at concentrations < 100µM significantly did not reduce viability of BJAB cells thereby indicating that a membrane disrupting effect of this naturally occurring polyhydroxystilbenes, ie unspecific necrosis, did not play a role for their death-inducing potency. Apoptosis induction was concentration-dependent with a half-maximum concentration of 25µM for piceatannol.
In Vivo	Animal experiment	
	Animal models:	Six-week-old female BALB/c mice
	Dosage form:	1, 2.5, 5, or 10 mg/kg of body weight by gavage for 7 days
	Applications:	The DAI (disease activity index) decreased significantly in the mice receiving piceatannol (2.5–10 mg/kg) compared with the mice receiving vehicle treatment. And piceatannol (2.5–10 mg/kg) treatment reduced weight loss in mice with colitis. NO and PGE2 are considered important inflammatory mediators, playing a key role in the pathogenesis of IBD (Inflammatory bowel disease). Oral administration of piceatannol reduced NO and PGE2 production in a concentration-dependent manner at day 10. Piceatannol administration (10 mg/kg) prevented significant increases in IL-1β, IL-6, and TNF-α levels. Administration of piceatannol 10 mg/kg significantly decreased the translocation of phospho-STAT3 and of the p65 subunit of NF-κB to enterocyte nuclei. Thus 10 mg/kg of piceatannol dramatically reduced MCP-1 and KC production in the colon. This indicated that piceatannol exerted anti-inflammatory effects by reducing monocyte and neutrophil infiltration into the colonic mucosa.
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].Wieder, T.,Prokop, A.,Bagci, B., et al. Piceatannol, a hydroxylated analog of the chemopreventive agent resveratrol, is a potent

inducer of apoptosis in the lymphoma cell line BJAB and in primary, leukemic lymphoblasts. *Leukemia* 15, 1735-1742.

[2]. Kim YH1, Kwon HS, Kim DH., et al. Piceatannol, a stilbene present in grapes, attenuates dextran sulfate sodium-induced colitis. *Int Immunopharmacol.* 2008 Dec 10;8(12):1695-702.

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 APEX BIO 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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