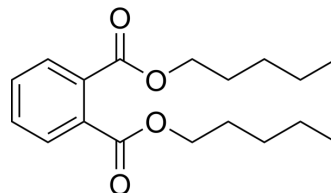


## Dipentyl phthalate

Cat. No.:	HY-W013816		
CAS No.:	131-18-0		
Molecular Formula:	C <sub>18</sub> H <sub>26</sub> O <sub>4</sub>		
Molecular Weight:	306.4		
Target:	AMPK; Akt		
Pathway:	Epigenetics; PI3K/Akt/mTOR		
Storage:	Pure form	-20°C	3 years
		4°C	2 years
	In solvent	-80°C	6 months
		-20°C	1 month



### BIOLOGICAL ACTIVITY

#### Description

Dipentyl phthalate is an endocrine-disrupting phthalate plasticizer. Dipentyl phthalate increases AMPK phosphorylation and decreases AKT1 phosphorylation and SIRT1 levels. Dipentyl phthalate reduces adrenocorticotrophic hormone levels. Dipentyl phthalate is a testicular toxicant<sup>[1]</sup>.

### REFERENCES

[1]. Haiqiong Chen, et al. Exposure to dipentyl phthalate in utero disrupts the adrenal cortex function of adult male rats by inhibiting SIRT1/PGC-1 $\alpha$  and inducing AMPK phosphorylation. *Environ Toxicol.* 2023 May;38(5):997-1010.

[2]. Bethany R Hannas, et al. Dipentyl phthalate dosing during sexual differentiation disrupts fetal testis function and postnatal development of the male Sprague-Dawley rat with greater relative potency than other phthalates. *Toxicol Sci.* 2011 Mar;120(1):184-93.

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

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