## **Product** Data Sheet

## Dipentyl phthalate

Cat. No.: HY-W013816
CAS No.: 131-18-0

Molecular Formula:  $C_{18}H_{26}O_4$ Molecular Weight: 306.4

Pathway: Epigenetics; PI3K/Akt/mTOR

AMPK; Akt

Storage: Pure form -20°C 3 years

 $\begin{tabular}{ll} $4^{\circ}C$ & 2 years \\ In solvent & -80^{\circ}C$ & 6 months \\ \end{tabular}$ 

-20°C 1 month

## **BIOLOGICAL ACTIVITY**

Description

Target:

Dipentyl phthalate is an endocrine-disrupting phthalate plasticizer. Dipentyl phthalate increases AMPK phosphorylation and decreases AKT1 phosphorylation and SIRT1 levels. Dipentyl phthalate reduces adrenocorticotropic 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 AMPKphosphorylation. Environ Toxicol. 2023 May;38(5):997-1010.

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

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

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Inhibitors