

Product Data Sheet

Diapocynin

Cat. No.: HY-121097 CAS No.: 29799-22-2 Molecular Formula: $C_{18}H_{18}O_6$ Molecular Weight: 330.33

Target: NADPH Oxidase

Pathway: Metabolic Enzyme/Protease

Storage: Please store the product under the recommended conditions in the Certificate of

Analysis.

BIOLOGICAL ACTIVITY

Diapocynin (Dehydrodiacetovanillone), a dimeric derivative of Apocynin, is an orally active NADPH oxidase inhibitor.

Diapocynin has anti-inflammatory, neuroprotection and antioxidant activities^[1].

In Vivo

Diapocynin (300 mg/kg; p.o.; every 12 hours for 72 hours) significantly rescues DFP-induced motor impairment, attenuates epileptiform spiking during the first 72h post-DFP. Diapocynin significantly reduces DFP-induced reactive astrogliosis, neurodegeneration, GP91phox, glutathiolated protein, serum nitrite, or pro-inflammatory cytokines and chemokines such as interleukins (IL) IL-1a, IL-6, IL-2, IL-17A, Leptin, IP-10 in the hippocampus^[1].

MCE has not independently confirmed the accuracy of these methods. They are for reference only.

Animal Model:	Adult male Sprague-Dawley rats (200 g; 7-8 weeks old) injected with Diisopropylfluorophosphate (DFP) $^{[1]}$
Dosage:	300 mg/kg
Administration:	p.o.; every 12 hours for 72 hours
Result:	Significantly rescued DFP-induced motor impairment.

REFERENCES

[1]. Marson Putra, et al. Diapocynin, an NADPH oxidase inhibitor, counteracts diisopropylfluorophosphate-induced long-term neurotoxicity in the rat model. Ann N Y Acad Sci. 2020 Nov;1479(1):75-93.

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

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