

BD-AcAc 2

Catalog No: tcsc0735



Available Sizes

Size: 100mg

Size: 500mg



Specifications

CAS No:

1208313-97-6

Formula:

$C_8H_{16}O_4$

Pathway:

Others

Target:

Others

Purity / Grade:

>98%

Solubility:

H₂O : 33.33 mg/mL (189.15 mM; ultrasonic and heat to 60°C); DMSO : ≥ 50 mg/mL (283.75 mM)

Alternative Names:

Ketone Ester

Observed Molecular Weight:

176.21

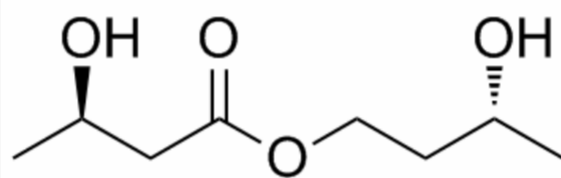
Product Description

BD-AcAc 2, added in diet, could elevated mean blood ketone bodies of 3.5 mm and lowered plasma glucose, insulin, and leptin in animals; ketone ester given orally would delay CNS-OT seizures in rats breathing hyperbaric oxygen.

IC50 value:

Target:

a ketone ester given orally as R,S-1,3-butanediol acetoacetate diester (BD-AcAc(2)) would delay CNS-OT seizures in rats breathing hyperbaric oxygen (HBO(2)). Adult male rats (n = 60) were implanted with radiotelemetry units to measure electroencephalogram (EEG). One week postsurgery, rats were administered a single oral dose of BD-AcAc(2), 1,3-butanediol (BD), or water 30 min before being placed into a hyperbaric chamber and pressurized to 5 atmospheres absolute (ATA) O₂ [1]. Beginning at a presymptomatic age, 2 groups of male 3xTgAD mice were fed a diet containing a physiological enantiomeric precursor of ketone bodies (KET) or an isocaloric carbohydrate diet. The results of behavioral tests performed at 4 and 7 months after diet initiation revealed that KET-fed mice exhibited significantly less anxiety in 2 different tests. 3xTgAD mice on the KET diet also exhibited significant, albeit relatively subtle, improvements in performance on learning and memory tests. Immunohistochemical analyses revealed that KET-fed mice exhibited decreased A β deposition in the subiculum, CA1 and CA3 regions of the hippocampus, and the amygdala [2].



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