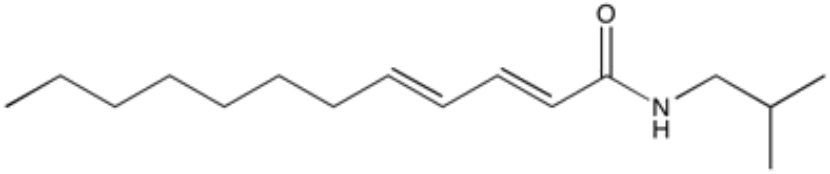
Catalog # 10-1621

Dienamide A2

CAS# 24738-51-0

(2E,4E)-N-Isobutyldodeca-2,4-dienamide

Lot # S104050



Dienamide A2 is an analog of the natural amides occurring in *Echinacea* which represent a new class of cannabinomimetic compounds. This class of compounds modulates TNFα mRNA expression in human monocytes/macrophages via the CB2 receptor.[1] Dienamide A2 binds to cannabinoid receptors with greater affinity than endogenous cannabinoids (K_i= ~60 and >1500 nM for CB2 and CB1 respectively).[2] It elevates intracellular Ca^{2+} levels in CB2-positive but not in CB2-negative cells and this effect was blocked by SR144528.[2] It significantly inhibits LPS-induced TNFα and IL-1β expression in a CB2-independent manner.[2]

1) Gertsch *et al*. (2004), *Echinacea alkylamides modulate TNF-alpha gene expression via cannabinoid receptor CB2 and multiple signal transduction pathways*; FEBS Lett., **577** 563
2) Raduner *et al*. (2006), *Alkylamides from Echinacea are a new class of cannabinomimetics. Cannabinoid type 2 receptor-dependent and –independent immunomodulatory effects*; J. Biol. Chem., **281** 14192

PHYSICAL DATA

Molecular Weight:	251.41
Molecular Formula:	$C_{16}H_{29}NO$
Purity:	98% by TLC
	NMR: (Conforms)
Solubility:	DMSO (up to 25 mg/ml) or Ethanol (up to 25 mg/ml)
Physical Description:	White solid
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO or ethanol may be stored at -20°C for up to 3 months.

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