

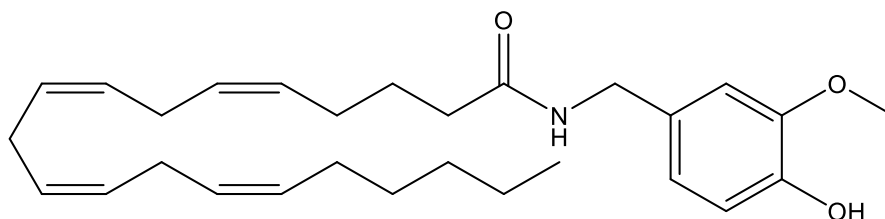
**Catalog #10-2741**

**Arvanil**

CAS# 128007-31-8

N-(3-Methoxy-4-hydroxy-benzyl)-arachidonamide; N-Vanillylarachidonamide

Lot # S108011



A non-pungent capsaicin analog with antinociceptive and anti-inflammatory effects *in vivo*.<sup>1</sup> It is an agonist at TRPV1 as well as CB<sub>1</sub> ( $K_i = 0.25 - 0.52 \mu\text{M}$ ), but not CB<sub>2</sub>.<sup>2,3</sup> Caused high mitochondrial calcium flow in hepatocellular carcinoma cells, ultimately leading to ferroptosis.<sup>4</sup> It induced FADD-dependent apoptosis in lymphoid Jurkat T-cells.<sup>5</sup> Neuroprotective in rat excitotoxicity model.<sup>6</sup>

- 1) Janusz *et al.* (1993), *Vanilloids. 1. Analogs of capsaicin with antinociceptive and antiinflammatory activity*; J. Med. Chem. **36** 2595
- 2) Lim *et al.* (2022), *Highly Efficient Real-Time TRPV1 Screening Methodology for Effective Drug Candidates*; ACS Omega **7** 36441
- 3) Di Marzo *et al.* (1998), *Interactions between synthetic vanilloids and the endogenous cannabinoid system*; FEBS Lett. **436** 449
- 4) Deng *et al.* (2024), *Arvanil induces ferroptosis of hepatocellular carcinoma by binding to MICU1*; Cancer Gene Ther. **31** 148
- 5) Sancho *et al.* (2003), *The CB1/VR1 agonist arvanil induces apoptosis through an FADD/caspase-8-dependent pathway*; Br. J. Pharmacol. **140** 1035
- 6) Veldhuis *et al.* (2003), *Neuroprotection by the endogenous cannabinoid anandamide and arvanil against in vivo excitotoxicity in the rat: the role of vanilloid receptors and lipoxygenases*; J. Neurosci. **23** 4127

**PHYSICAL DATA**

Molecular Weight:	439.64
Molecular Formula:	C <sub>28</sub> H <sub>41</sub> NO <sub>3</sub>
Purity:	>98% (TLC)
	NMR: (Conforms)
Solubility:	DMSO (50 mg/mL)
Physical Description:	Colorless/very pale yellow viscous oil
Storage and Stability:	Store as supplied at -20°C for up to 1 year from the date of purchase. Solutions in DMSO may be stored at -20°C for up to 1 month.

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