



LKT Laboratories, Inc.

Valproic Acid

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Product Information

Product ID V0148
CAS No. 99-66-1
Chemical Name 2-propylpentanoic acid

Synonym 2-Propylpentanoic Acid; Dipropylacetic acid; Depakene;
Depakine

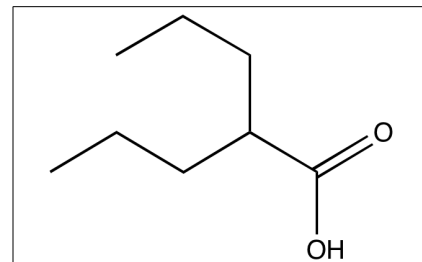
Formula $C_8H_{16}O_2$
Formula Wt. 144.21
Melting Point 120-130°C
Purity ≥98%

Solubility Water Solubility: 1.3mg/mL
Freely soluble in 1N sodium
hydroxide, methanol, alcohol,
acetone, chloroform, benzene,
ether, and hexane; slightly

Store Temp Ambient

Ship Temp Ambient

Description Valproic acid acts as an antagonist at T-type voltage-gated Ca^{2+} channels and voltage-gated Na^{+} channels; it also inhibits GABA transaminase, potentiating GABA signaling. Valproic acid is used clinically as an antiepileptic/anticonvulsant, although it also exhibits anti-inflammatory, anti-angiogenic, and anticancer chemotherapeutic activities. Valproic acid may also display antihypertensive benefit. In lung tissue, this compound prevents LPS-induced increases in TNF- α , IL-1 β , NF- κ B, NO, and iNOS. Valproic acid is an inhibitor of class I histone deacetylases (HDACs), primarily active against HDAC1, and downregulates expression of HDAC, VEGF, VEGFR2, and FGF, inhibiting tumor growth and angiogenesis in animal models.



Bulk quantities available upon request

Product ID	Size
V0148	10 g
V0148	25 g
V0148	100 g

References Zhang ZH, Hao CL, Liu P, et al. Valproic acid inhibits tumor angiogenesis in mice transplanted with Kasumi 1 leukemia cells. *Mol Med Rep.* 2014 Feb;9(2):443-9. PMID: 24297248.

Ji MH, Li GM, Jia M, et al. Valproic acid attenuates lipopolysaccharide-induced acute lung injury in mice. *Inflammation.* 2013 Dec;36(6):1453-9. PMID: 23846716.

Zhao L, Chen CN, Hajji N, et al. Histone deacetylation inhibition in pulmonary hypertension: therapeutic potential of valproic acid and suberoylanilide hydroxamic acid. *Circulation.* 2012 Jul 24;126(4):455-67. PMID: 22711276.

Rosenberg G. The mechanisms of action of valproate in neuropsychiatric disorders: can we see the forest for the trees? *Cell Mol Life Sci.* 2007 Aug;64(16):2090-103. PMID: 17514356.

Kelly KM, Gross RA, Macdonald RL. Valproic acid selectively reduces the low-threshold (T) calcium current in rat nodose neurons. *Neurosci Lett.* 1990 Aug 14;116(1-2):233-8. PMID: 2175404.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.