



## Product Information

Product ID V0147  
CAS No. 1069-66-5  
Chemical Name

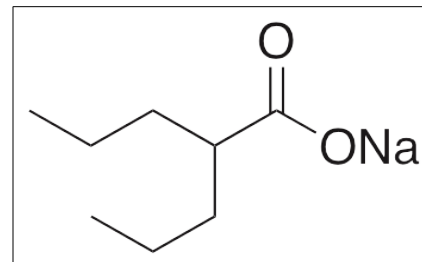
Synonym Sodium 2-propylpentanoate, Sodium valproate, 2-Propylpentanoic acid sodium salt

Formula  $C_8H_{15}NaO_2$   
Formula Wt. 166.19  
Melting Point  $300^{\circ}C$   
Purity  $\geq 98\%$   
Solubility Water (50 mg/ml)  
Ethanol (30 mg/ml)  
DMSO (5 mg/ml)  
DMF (5 mg/ml)

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- $\alpha$ , IL-1 $\beta$ , NF- $\kappa$ 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
V0147	10 g
V0147	25 g
V0147	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.