biogems
Enabling Science through Innovation

Technical Data Sheet

Valproic acid sodium salt

Catalog Number :1066656

RUO: For Research Use Only. Not for use in diagnostic procedures.

Product Information

Synonyms: 2-Propylpentanoic Acid, Convulsofin, Depakene, Depakine, Divalproex, Ergenyl

Chemical Name: sodium;2-propylpentanoate

Molecular Formula: $C_8H_{15}O_2Na$

Molecular Weight: 166.2

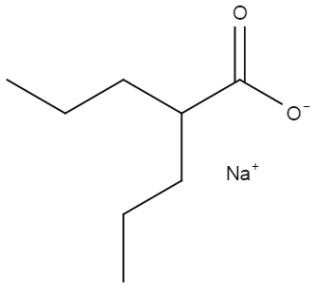
CAS Number: 1069-66-5

Purity: ≥95%

Applications: FA

Formulation: Crystalline solid

Storage: Product should be kept at -20°C.



Description

Valproic Acid (VPA) is a histone deacetylase (HDAC) inhibitor with anti-inflammatory, neuroprotective and anticonvulsant properties. It also inhibits the enzymes in gamma-Aminobutyric acid (GABA) metabolism leading to increased levels of GABA and also, to deplete cellular inositol synthesis. VPA is reported to promote the self-renewal and differentiation of hematopoietic progenitor cells and be useful in generating induced pluripotent stem cells, in combination with other small molecules and growth factors.

Preparation & Storage

Soluble in organic solvents such as ethanol or DMSO. DMSO up to 30 mM.

References

1.Phiel, C. J., Zhang, F., Huang, E. Y., Guenther, M. G., Lazar, M. A., Klein, P. S. (2001). Histone deacetylase is a direct target of valproic acid, a potent anticonvulsant, mood stabilizer, and teratogen.;Journal of Biological Chemistry,276(39), 36734-36741.

2. Göttlicher, M., Minucci, S., Zhu, P., Krämer, O. H., Schimpf, A., Giavara, S., ... Heinzel, T. (2001). Valproic acid defines a novel class of HDAC inhibitors inducing differentiation of transformed cells.;The EMBO journal,;20(24), 6969-6978.

3. Bug, G., Gül, H., Schwarz, K., Pfeifer, H., Kampfmann, M., Zheng, X., ... Ruthardt, M. (2005). Valproic acid stimulates proliferation and self-renewal of hematopoietic stem cells.;Cancer Research,;65(7), 2537-2541.

4. Huangfu, D., Maehr, R., Guo, W., Eijkelenboom, A., Snitow, M., Chen, A. E., Melton, D. A. (2008). Induction of pluripotent stem cells by defined factors is greatly improved by small-molecule compounds.;Nature biotechnology,;26(7), 795-797.

email: info@bio-gems.com | domain: www.bio-gems.com | phone: 818.338.3312 | fax: 818.338.3316