


Certificate of Analysis

Catalog Number	BP13805
Product Name	Divalproex Sodium

Physical and Chemical Properties

Synonyms	Epival, Valproate semisodium
CAS No.	76584-70-8
Chemical Formula	C ₁₆ H ₃₁ NaO ₄
Molecular Weight	310.41
Solubility	Ethanol: 58 mg/mL (186.8 mM) H ₂ O: 57 mg/mL (183.6 mM); DMSO: 58 mg/mL (186.8 mM)
Storage	Powder: -20°C for 2 years In solvent: -80°C for 1 year
Chemical Structure OR Tested Image	

Product Information

Description	Divalproex Sodium binds to and inhibits gamma-aminobutyric acid (GABA) transaminase and its anticonvulsant activity may be exerted by increasing brain concentration of GABA and by inhibiting enzymes that catabolize GABA or block the reuptake of GABA into glia and nerve endings. It also is an HDAC inhibitor. Divalproex Sodium is a stable coordination compound comprised of sodium valproate and valproic acid with anticonvulsant and antiepileptic activities. Divalproex may also work by suppressing repetitive neuronal firing through inhibition of voltage-sensitive sodium channels.
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In vitro	Divalproex sodium enhances apoptosis, IM-induced cell growth inhibition and cell cycle arrest in K562-G and K562-S cells. It enhances the inhibitory effects of IM on SIRT1 expression in K562-G and K562-S cells. Divalproex sodium enhances the effect of IM on apoptosis in K562-G cells partly through SIRT1.
In vivo	Divalproex (500 mg/kg) significantly increases dopamine (DA) and acetylcholine (ACh) efflux in the rat hippocampus, and DA, but not ACh, efflux in the rat medial prefrontal cortex (mPFC), whereas 50 mg/kg has no effect on DA or ACh in either region. Divalproex (50 mg/kg) combined with the atypical APDs Olanzapine (1.0 mg/kg) or Aripiprazole (0.3 mg/kg) significantly potentiates the effect of both antipsychotic drugs (APDs) on DA, but not ACh efflux in the HIP and mPFC.

Analytical Data

HPLC	Shows Min >99% purity
H-NMR	Consistent with structure
Stability and Solubility Advice	Information on product stability, especially in solution, has rarely been reported and in most cases we can only provide a general guideline. We recommend that once the stock solution has been prepared, it be stored in equal quantities in sealed vials and used within 1 month. Avoid repeated freezing and thawing cycles. Storage conditions for some special products should be referred to their storage details.

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