1. PHYSICAL AND CHEMICAL PROPERTIES

- **Batch Molecular Formula:** \( \text{C}_8\text{H}_{15}\text{NaO}_2\cdot0.2\text{H}_2\text{O} \)
- **Batch Molecular Weight:** 169.79
- **Physical Appearance:** White crystalline solid
- **Solubility:**
  - Water to 100 mM
  - DMSO to 50 mM
- **Storage:** Desiccate at RT

2. ANALYTICAL DATA

- **\(^1\text{H NMR:}** Consistent with structure
- **Microanalysis:** Carbon Hydrogen Nitrogen
  - Theoretical 56.59 9.14
  - Found 56.88 9.21
**Product Name:** Valproic acid, sodium salt  
**Catalog No.:** 2815  
**CAS Number:** 1069-66-5  
**EC Number:** 213-961-8  
**IUPAC Name:** Sodium 2-propylpentanoate

**Description:**
Valproic acid, sodium salt is a histone deacetylase inhibitor (IC$_{50}$ = 400 μM) that exhibits anticancer, anti-inflammatory and neuroprotective effects. Displays anticonvulsive activity via an increase in GABA levels and decreases Aβ production in animal models of Alzheimer's disease. Also attenuates NMDA-mediated excitation, blocks voltage-gated Na$^+$ channels and modulates firing of neurons. Enables induction of pluripotent stem cells from somatic cells by Oct4 and Sox2. Can induce autophagy by inhibiting inositol synthesis. Identified by chemoinformatics as targeting human host proteins that interact with SARS-CoV-2. For more in... Please see product specific page on www.tocris.com for full description.

**Physical and Chemical Properties:**
- **Batch Molecular Formula:** C$_9$H$_{18}$NaO$_2$.0.2H$_2$O
- **Batch Molecular Weight:** 169.79
- **Physical Appearance:** White crystalline solid

**Storage:** Desiccate at RT

**Solubility & Usage Info:**
- Water to 100 mM
- DMSO to 50 mM

**CAUTION -** This product is extremely hygroscopic and we recommend that it is desiccated upon arrival.

**Stability and Solubility Advice:**
Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

**SOLIDS:** Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

**SOLUTIONS:** We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

**References:**