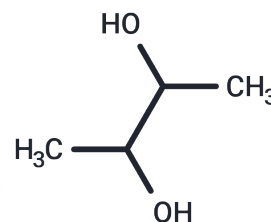


## 2,3-Butanediol

## Chemical Properties

|                   |  |
|-------------------|--|
| CAS No. :         | 513-85-9   |
| Formula:          | C <sub>4</sub> H <sub>10</sub> O <sub>2</sub>  |
| Molecular Weight: | 90.12  |
| Storage:          | Pure form: -20°C for 3 years   In solvent: -80°C for 1 year<br>Actual storage temperature shall be subject to the COA. |



## Biological Description

|               |  |
|---------------|--|
| Description   | 2,3-Butanediol, derived from the bioconversion of natural resources, holds significant potential for various industries, including chemical, cosmetics, agriculture, and pharmaceutical sectors. |
| Targets(IC50) | Cannabinoid Receptor,Akt,Endogenous Metabolite,PPAR  |

## Solubility Information

|                     |   |
|---------------------|---|
| Solubility          | H <sub>2</sub> O: 80 mg/mL (887.71 mM),Sonication is recommended.<br>DMSO: 60 mg/mL (665.78 mM),Sonication is recommended.<br>( $< 1$ mg/ml refers to the product slightly soluble or insoluble)  |
| In vivo Formulation | 10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (22.19 mM),Sonication is recommended.<br><i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i> |

## Preparing Stock Solutions

|       | 1mg        | 5mg        | 10mg        |
|-------|------------|------------|-------------|
| 1 mM  | 11.0963 mL | 55.4816 mL | 110.9632 mL |
| 5 mM  | 2.2193 mL  | 11.0963 mL | 22.1926 mL  |
| 10 mM | 1.1096 mL  | 5.5482 mL  | 11.0963 mL  |
| 50 mM | 0.2219 mL  | 1.1096 mL  | 2.2193 mL   |

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Yang Z, Zhang Z. Recent advances on production of 2, 3-butanediol using engineered microbes. *Biotechnol Adv.* 2019 Jul-Aug;37(4):569-578.

Zhang L, et al. Mechanism of 2,3-butanediol stereoisomers formation in a newly isolated *Serratia* sp. T241. *Sci Rep.* 2016 Jan 12;6:19257.

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