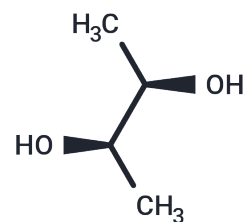


(2R,3R)-Butane-2,3-diol

Chemical Properties

CAS No. :	24347-58-8
Formula:	C ₄ H ₁₀ O ₂
Molecular Weight:	90.12
Storage:	Store at low temperature Powder: -20°C for 3 years In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



Biological Description

Description	(2R,3R)-Butane-2,3-diol (levo-2,3-Butanediol) is a constitutional isomer of butanediol found in cocoa and cocoa products, as well as isolated from cocoa butter and the roots of <i>Ruta graveolens</i> (rue). This stereoisomer is produced by various microorganisms through butanediol fermentation.
Targets(IC50)	Calcium Channel,Endogenous Metabolite,Antibacterial
In vivo	In vivo studies indicate that D-Asp indirectly stimulates spermatogenesis through the hypothalamic-pituitary-gonadal axis. The oral and/or intraperitoneal D-Asp administration to adult rats induced an increase of serum progesterone and LH as well as an increase of testis/serum testosterone levels, whereas 17β-estradiol (E2) levels did no change.

Solubility Information

Solubility	DMSO: 60 mg/mL (665.78 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 1 mg/mL (11.1 mM),Sonication is recommended. <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

Yannai, Shmuel. (2004) Dictionary of food compounds with CD-ROM: Additives, flavors, and ingredients. Boca Raton: Chapman & Hall/CRC..

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