# Data Sheet (Cat.No.T37705)

TargetMol

## 1,2,4-Trihydroxybenzene

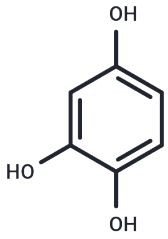
### Chemical Properties

CAS No. : 533-73-3

Formula: C6H6O3

Molecular Weight: 126.11

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.




### Biological Description

| | |
|---|---|
| Description | 1,2,4-Trihydroxybenzene (Benzene-1,2,4-triol) is a by-product of coffee bean roasting and is found in mouse, arabica coffee.1,2,4-Trihydroxybenzene is a benzotriol that increases Ca2+ concentration in rat thymic lymphocytes. |
| Targets(IC50) | Apoptosis,Calcium Channel,PERK,Potassium Channel |

### Solubility Information

| | |
|---|---|
| Solubility | DMSO: 60 mg/mL (475.78 mM),Sonication is recommended.<br>(< 1 mg/ml refers to the product slightly soluble or insoluble) |
| In vivo Formulation | 10% DMSO+90% Saline: 2.5 mg/mL (19.82 mM),Sonication is recommended.<br>*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.* |

Preparing Stock Solutions

| | 1mg | 5mg | 10mg |
|---|---|---|---|
| 1 mM | 7.9296 mL | 39.6479 mL | 79.2959 mL |
| 5 mM | 1.5859 mL | 7.9296 mL | 15.8592 mL |
| 10 mM | 0.793 mL | 3.9648 mL | 7.9296 mL |
| 50 mM | 0.1586 mL | 0.793 mL | 1.5859 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

Kamae R, et al. Hydroxyhydroquinone, a by-product of coffee bean roasting, increases intracellular Ca2+ concentration in rat thymic lymphocytes. Food Chem Toxicol. 2017;102:39-45.
Kato H, et al. Characterization of two 1,2,4-trihydroxybenzene 1,2-dioxygenases from Phanerochaete chrysosporium. Appl Microbiol Biotechnol. 2022;106(12):4499-4509.
Reichenbecher W, et al. Hydroxyhydroquinone reductase, the initial enzyme involved in the degradation of hydroxyhydroquinone (1,2,4-trihydroxybenzene) by Desulfovibrio inopinatus. Arch Microbiol. 2000;173(3):206-212.



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