2,3-Diphosphoglyceric acid pentasodium

Cat. No.: HY-113050A

CAS No.: 1287756-01-7

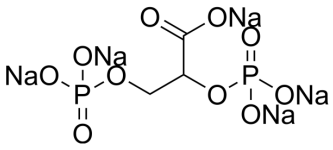
Molecular Formula: $C_3H_3Na_5O_{10}P_2$

Molecular Weight: 375.95

Target: Others

Pathway: Others

Storage: Please store the product under the recommended conditions in the Certificate of Analysis.



SOLVENT & SOLUBILITY

In Vitro

H_2O : 250 mg/mL (664.98 mM; Need ultrasonic)

DMSO : < 1 mg/mL (ultrasonic;warming;heat to 60°C) (insoluble or slightly soluble)

Preparing Stock Solutions

Concentration \ Solvent \ Mass	1 mg	5 mg	10 mg
1 mM	2.6599 mL	13.2996 mL	26.5993 mL
5 mM	0.5320 mL	2.6599 mL	5.3199 mL
10 mM	0.2660 mL	1.3300 mL	2.6599 mL

Please refer to the solubility information to select the appropriate solvent.

BIOLOGICAL ACTIVITY

Description

2,3-Diphosphoglyceric acid (2,3-DPG) pentasodium is an intermediate of the glycolytic pathway. 2,3-Diphosphoglyceric acid pentasodium stabilizes the deoxygenated form of hemoglobin by allosteric binding and facilitates oxygen release at tissue sites. 2,3-Diphosphoglyceric acid pentasodium binds to hemoglobin and decrease its affinity for oxygen[1][2].

REFERENCES

[1]. Shakil H. Merchant MD, et al. 24 - Molecular Diagnosis in Hematopathology. Hematopathology (Second Edition).2012, 679-726.

[2]. Płoszczyca K, et al. Red Blood Cell 2,3-Diphosphoglycerate Decreases in Response to a 30 km Time Trial Under Hypoxia in Cyclists. Front Physiol. 2021 Jun 15;12:670977.

Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA