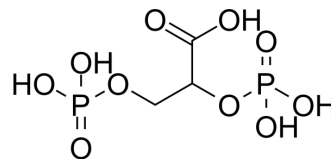


## 2,3-Diphosphoglyceric acid

Cat. No.:	HY-113050
CAS No.:	138-81-8
Molecular Formula:	C <sub>3</sub> H <sub>8</sub> O <sub>10</sub> P <sub>2</sub>
Molecular Weight:	266.04
Target:	Parasite
Pathway:	Anti-infection
Storage:	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	2,3-Diphosphoglyceric acid (2,3-DPG) is an intermediate of the glycolytic pathway. 2,3-Diphosphoglyceric acid stabilizes the deoxygenated form of hemoglobin by allosteric binding and facilitates oxygen release at tissue sites. 2, 3-diphosphoglyceric acid has antiparasitic activity. 2,3-Diphosphoglyceric acid can be used in the study of Alzheimer's disease (AD) <sup>[1][2][3][4]</sup> .
<b>In Vitro</b>	2, 3-diphosphoglyceric acid (8 mM, 48 h) inhibits the development of Plasmodium falciparum <sup>[3]</sup> . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

### 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.
- [3]. Morais I, et al. Synthetic Red Blood Cell-Specific Glycolytic Intermediate 2,3-Diphosphoglycerate (2,3-DPG) Inhibits Plasmodium falciparum Development In Vitro. Front Cell Infect Microbiol. 2022 Mar 15;12:840968.
- [4]. Kosenko EA, et al. Relationship between chronic disturbance of 2,3-diphosphoglycerate metabolism in erythrocytes and Alzheimer disease. CNS Neurol Disord Drug Targets. 2016;15(1):113-23.

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

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