



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC Handels GmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

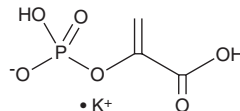
# PRODUCT INFORMATION



## Phosphoenolpyruvic Acid (potassium salt)

Item No. 19192

**CAS Registry No.:** 4265-07-0  
**Formal Name:** 2-(phosphonooxy)-2-propenoic acid, monopotassium salt  
**Synonym:** PEP-K  
**MF:**  $C_3H_4O_6P \cdot K$   
**FW:** 206.1  
**Purity:**  $\geq 95\%$   
**Supplied as:** A crystalline solid  
**Storage:**  $-20^\circ\text{C}$   
**Stability:** As supplied, 2 years from the QC date provided on the Certificate of Analysis, when stored properly



### Laboratory Procedures

Phosphoenolpyruvic acid (potassium salt) is supplied as a crystalline solid. Phosphoenolpyruvic acid (potassium salt) is sparingly soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. For biological experiments, we suggest that organic solvent-free aqueous solutions of phosphoenolpyruvic acid (potassium salt) be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of phosphoenolpyruvic acid (potassium salt) in PBS, pH 7.2, is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Phosphoenolpyruvic acid plays a role in both glycolysis and gluconeogenesis. During glycolysis, it is formed by the action of enolase on 2-phosphoglycerate and is metabolized to pyruvate by pyruvate kinase.<sup>1</sup> One molecule of ATP is formed during its metabolism in this pathway. During gluconeogenesis, it is formed from phosphoenolpyruvate carboxykinase-catalyzed oxaloacetate decarboxylation and GTP hydrolysis.<sup>1-3</sup> In plants, it is metabolized to form aromatic amino acids and also serves as a substrate for phosphoenolpyruvate carboxylase-catalyzed carbon fixation.<sup>4</sup>

### References

1. Muñoz, M.E. and Ponce, E. Pyruvate kinase: Current status of regulatory and functional properties. *Comp. Biochem. Physiol. B* **135**(2), 197-218 (2003).
2. Matte, A., Tari, L.W., Goldie, H., *et al.* Structure and mechanism of phosphoenolpyruvate carboxykinase. *J. Biol. Chem.* **272**(13), 8105-8108 (1997).
3. Hanson, R.W. and Garber, A.J. Phosphoenolpyruvate carboxykinase. I. Its role in gluconeogenesis. *Am. J. Clin. Nutr.* **25**(10), 1010-1021 (1972).
4. Herrmann, K.M. The shikimate pathway: Early steps in the biosynthesis of aromatic compounds. *Plant Cell* **7**(7), 907-919 (1995).

#### WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

#### SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

#### WARRANTY AND LIMITATION OF REMEDY

Buyer agrees to purchase the material subject to Cayman's Terms and Conditions. Complete Terms and Conditions including Warranty and Limitation of Liability information can be found on our website.

Copyright Cayman Chemical Company, 06/24/2016

#### CAYMAN CHEMICAL

1180 EAST ELLSWORTH RD  
ANN ARBOR, MI 48108 · USA

**PHONE:** [800] 364-9897  
[734] 971-3335

**FAX:** [734] 971-3640

CUSTSERV@CAYMANCHEM.COM  
WWW.CAYMANCHEM.COM