

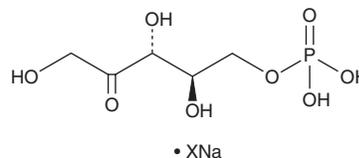
PRODUCT INFORMATION



D-Ribulose-5-phosphate (sodium salt)

Item No. 21423

Formal Name: 5-(dihydrogen phosphate),
D-erythro-2-pentulose, sodium salt
Synonym: Ru5P
MF: C₅H₁₁O₈P • XNa
FW: 230.1
Purity: ≥95%
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

D-Ribulose-5-phosphate (sodium salt) is supplied as a crystalline solid. Aqueous solutions of D-ribulose-5-phosphate (sodium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of D-ribulose-5-phosphate (sodium 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

D-Ribulose-5-phosphate is an intermediate in the pentose phosphate pathway.^{1,2} It can be derived from 6-phosphogluconate by a dehydrogenase or from xylulose 5-phosphate by ribulose phosphate 3-epimerase. D-Ribulose-5-phosphate is also an intermediate in carbon fixation in photosynthetic organisms as well as in the biosynthesis of lipopolysaccharide, amino acids, secondary metabolites, and antibiotics.³

References

1. Gumaa, K.A. and McLean, P. The pentose phosphate pathway of glucose metabolism: Enzyme profiles and transient and steady-state content of intermediates of alternative pathways of glucose metabolism in Krebs ascites cells. *Biochem. J.* **115**(5), 1009-1029 (1969).
2. Patra, K.C. and Hay, N. The pentose phosphate pathway and cancer. *Trends Biochem. Sci.* **39**(8), 347-354 (2014).
3. Wolosiuk, R.A., Ballicora, M.A. and Hagelin, K. The reductive pentose phosphate cycle for photosynthetic CO₂ assimilation: Enzyme modulation. *FASEB J.* **7**(8), 622-637 (1993).

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.

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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