

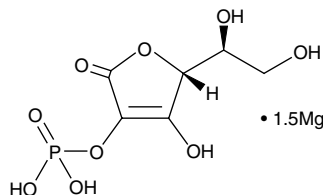
Product Information



L-Ascorbic Acid 2-phosphate (magnesium salt)

Item No. 16457

CAS Registry No.: 113170-55-1
Formal Name: 2-(dihydrogen phosphate)-L-ascorbic acid, dimagnesium salt
Synonyms: AA2P, Ascorbyl PM, Phosphitan C
MF: $C_6H_6O_9P \cdot 1.5Mg$
FW: 289.5
Purity: $\geq 95\%$
Stability: ≥ 2 years at $-20^\circ C$
Supplied as: A crystalline solid
UV/Vis.: λ_{max} : 259 nm



Laboratory Procedures

For long term storage, we suggest that L-ascorbic acid 2-phosphate (AA2P) (magnesium salt) be stored as supplied at $-20^\circ C$. It should be stable for at least two years.

AA2P (magnesium salt) is supplied as a crystalline solid. Aqueous solutions of AA2P (magnesium salt) can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of AA2P in PBS, pH 7.2, is approximately 1 mg/ml. We do not recommend storing the aqueous solution for more than one day.

L-Ascorbic acid (vitamin C; Item No. 14656) is essential for the synthesis of collagen, with deficiency resulting in scurvy.¹ Notably, humans and other primates, guinea pigs, and certain other animals lack an enzyme necessary for vitamin C synthesis.¹ AA2P is a long-acting ascorbic acid derivative that stimulates collagen expression and formation and is used in human cell culture.^{2,3} It may be included in media to enhance the survival of human embryonic stem cells or increase the growth and replicative lifespan of human corneal endothelial cells.^{4,5} AA2P is also used to drive osteogenic differentiation in human adipose stem cells and in human mesenchymal stromal/stem cells.⁶⁻⁸

References

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