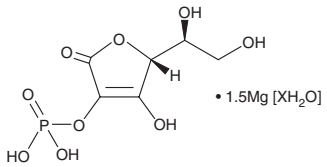
PRODUCT INFORMATION

L-Ascorbic Acid 2-phosphate (magnesium salt hydrate)

Item No. 16457

CAS Registry No.: 1713265-25-8
Formal Name: 2-(dihydrogen phosphate)-L-ascorbic acid, dimagnesium salt
Synonyms: AA2P, Ascorbyl PM, Phospitan C
MF: $C_6H_6O_9P$ • 1.5Mg [XH2O]
FW: 292.6
Purity: ≥95%
UV/Vis.: λ_{max}: 259 nm
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

AA2P (magnesium salt hydrate) is supplied as a crystalline solid. Aqueous solutions of AA2P (magnesium salt hydrate) 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.

Description

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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