

Specification

L(+)-Ascorbic Acid powdered *BioChemica*

A1052

Solubility:	333 g/L (H ₂ O)
Physical Description:	Solid
Product Code:	A1052
Product Name:	L(+)-Ascorbic Acid powdered <i>BioChemica</i>
Specifications:	<p>Assay (titr.): min. 99 %</p> <p>α20°C/D; 10 %, H₂O: +20.5° - +21.5°</p> <p>pH (5 %; H₂O; 20°C): 2.2 - 2.5</p> <p>Heavy metals (as Pb): max. 0.0005 %</p> <p>Insoluble matter: passes test</p> <p>Oxalic acid: max. 0.2 %</p> <p>Chloride: max. 0.005 %</p> <p>Sulfate: max. 0.002 %</p>
WGK:	1
Storage:	RT
Molecular Formula:	C ₆ H ₈ O ₆
M:	176.13 g/mol
CAS:	50-81-7
EINECS:	200-066-2
CS:	29362700
Comment	<p>An important function of ascorbic acid (vitamin C) in the organism is the protection of Fe²⁺ in oxygenases from the oxidation to Fe³⁺ or as a reducing agent in hydroxylation reactions, like the conversion of proline to hydroxyproline in collagen. Oxygen irreversibly oxidizes ascorbic acid in aqueous solution to L-diketogulonic acid and other biologically inactive substances. For the preparation of plant cell and tissue extracts, high concentrations of reducing agents have to be added to the homogenisation buffers. Especially for the preparation of chloroplasts, the physiological reducing agents ascorbic acid and glutathione will be applied (3, 4). The ascorbate stock solution (100X) is composed of 50 mM HEPES-NaOH (pH 7.6) with 0.5 M ascorbate and stored at -20°C. The working concentration is 2 mM (4) to 5 mM (3) ascorbate.</p>

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Bibliography

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