



CAS Registry Number: 5743-27-1

Optical Rotation: $[\alpha]_{\text{D}}^{10} +91$ (c, 0.3 in H₂O)

>>**Derivative:** Phenylhydrazone

Melting Point: Mp 216°

>>**Derivative:** 6-Hexadecanoyl

Synonym(s): Ascorbyl palmitate, USAN. E304

CAS Registry Number: 137-66-6

Molecular Formula: C₂₂H₃₈O₇

Molecular Weight: 414.538

Accurate Mass: 414.261755

Percentage Composition: C 63.74%; H 9.24%; O 27.02%

Use/Importance: Antioxidant. Pharmaceutical excipient

Melting Point: Mp 107-117°

Optical Rotation: $[\alpha]_{\text{D}}^{20} +22.9$ (c, 2 in MeOH)

Aldrich: 29112-9

Fluka: 76183

Sigma: A5041

>>**Derivative:** 5,6-*O*-Isopropylidene

Synonym(s): 5,6-*O*-Isopropylidene-L-*threo*-hex-2-enono-1,4-lactone

CAS Registry Number: 15042-01-0

Molecular Formula: C₉H₁₂O₆

Molecular Weight: 216.19

Accurate Mass: 216.06339

Percentage Composition: C 50.00%; H 5.59%; O 44.40%

Melting Point: Mp 220-222°

Optical Rotation: $[\alpha]_{\text{D}}^{25} -25.2$ (c, 1.0 in H₂O)

Aldrich: 30136-1

Fluka: 59435

Sigma: I5633

>>**Derivative:** 5,6-*O*-Cyclohexylidene

Synonym(s): 5,6-*O*-Cyclohexylidene-L-*threo*-hex-2-enono-1,4-lactone

CAS Registry Number: 6614-52-4

Molecular Formula: C₁₂H₁₆O₆

Molecular Weight: 256.255

Accurate Mass: 256.09469

Percentage Composition: C 56.25%; H 6.29%; O 37.46%

Melting Point: Mp 183-185°

Optical Rotation: $[\alpha]_{\text{D}}^{25} +12.7$ (c, 1.0 in Me₂CO)

Other Data: Props. acc. to Carlsen *et al* (1995), who state that it is obt. as a 1:1 mixt. of diastereoisomers

Aldrich: 37466-0

Fluka: 29397

>>**Derivative:** 5,6-*O*-Benzylidene

Synonym(s): 5,6-*O*-Benzylidene-L-*threo*-hex-2-enono-1,4-lactone

CAS Registry Number: 20664-60-2

Molecular Formula: C₁₃H₁₂O₆

Molecular Weight: 264.234

Accurate Mass: 264.06339

Percentage Composition: C 59.09%; H 4.58%; O 36.33%

Physical Description: Cryst. (C₆H₆)

Melting Point: Mp 167-168°