



CAS Registry Number: 16503-32-5

Molecular Formula: C₂₀H₂₆O₅

Molecular Weight: 346.422

Accurate Mass: 346.178025

Percentage Composition: C 69.34%; H 7.56%; O 23.09%

Biological Source: Constit. of *Helenium alternifolium*

Physical Description: Cryst. (Et₂O/hexane)

Melting Point: Mp 116-117°

Optical Rotation: [α]_D -264 (c, 1 in CHCl₃)

>>**Variant:** (1 α ,5 β ,6 α ,8 β ,10 α ,11 β)-form

Molecular Formula: C₁₅H₂₀O₄

Molecular Weight: 264.321

Accurate Mass: 264.13616

Percentage Composition: C 68.16%; H 7.63%; O 24.21%

>>**Derivative:** Angeloyl

Synonym(s): Thurberilin

CAS Registry Number: 3668-12-0

Molecular Formula: C₂₀H₂₆O₅

Molecular Weight: 346.422

Accurate Mass: 346.178025

Percentage Composition: C 69.34%; H 7.56%; O 23.09%

Biological Source: Constit. of *Helenium thurberi*

Physical Description: Cryst. (Me₂CO/diisopropyl ether)

Melting Point: Mp 162°

Optical Rotation: [α]_D²⁷ +20 (c, 0.4 in 95% EtOH)

UV: [neutral] $\lambda_{\max}$ 223 (ϵ 15500); 320 (ϵ 54) (EtOH) (Berdy)

>>**Variant:** (1 α ,5 β ,6 β ,8 α ,10 α ,11 α)-form

Synonym(s): Desacetylisotenulin

Molecular Formula: C₁₅H₂₀O₄

Molecular Weight: 264.321

Accurate Mass: 264.13616

Percentage Composition: C 68.16%; H 7.63%; O 24.21%

Biological Source: Isol. from *Helenium bigelovii*

Physical Description: Cryst. (EtOH)

Melting Point: Mp 255° (225°)

Optical Rotation: [α]_D²⁰ -15 (c, 0.31 in CHCl₃)

>>**Derivative:** Ac

Synonym(s): Isotenulin

CAS Registry Number: 10092-04-3

Molecular Formula: C₁₇H₂₂O₅

Molecular Weight: 306.358

Accurate Mass: 306.146725

Percentage Composition: C 66.65%; H 7.24%; O 26.11%

Biological Source: Isol. from *Helenium tenuifolium*, *Helenium arizonicum* and *Helenium bigelovii*

Physical Description: Cryst. (H₂O)

Melting Point: Mp 160-161°

Optical Rotation: [α]_D +6 (c, 1.57 in EtOH)

Other Data: Prob. artifact

References: