



Synonym(s): 3-*O*-Benzoylepicatechin 5-glucoside

Molecular Formula: C₂₈H₂₈O₁₂

Molecular Weight: 556.522

Accurate Mass: 556.15808

Percentage Composition: C 60.43%; H 5.07%; O 34.50%

Biological Source: Constit. of *Celastrus orbiculatus*

Biological Use/Importance: Antioxidant

Physical Description: Bright pink needles (CH₂Cl₂/MeOH)

Melting Point: Mp 191-192°

Optical Rotation: [α]_D²⁵ -95 (c, 0.3 in MeOH)

UV: [neutral] $\lambda_{\max}$ 213 (log ϵ 4.67); 229 (log ϵ 4.47); 283 (log ϵ 3.78) (MeOH)

>> **Derivative:** 3-*O*-(4-Hydroxybenzoyl)

Synonym(s): 3-(4-Hydroxybenzoyl)epicatechin

CAS Registry Number: 108907-45-5

Molecular Formula: C₂₂H₁₈O₈

Molecular Weight: 410.379

Accurate Mass: 410.10017

Percentage Composition: C 64.39%; H 4.42%; O 31.19%

Biological Source: Isol. from *Camellia sinensis* var. *assamica*

Physical Description: Off-white powder + 1H₂O

Optical Rotation: [α]_D²¹ -144.4 (c, 1 in Me₂CO)

>> **Derivative:** 3-*O*-(3,4,5-Trihydroxybenzoyl)

Synonym(s): 3-*O*-Galloylepicatechin. Epicatechin gallate. Teatannin

CAS Registry Number: 1257-08-5

Extra CAS Registry Numbers(s): 863-03-6

Molecular Formula: C₂₂H₁₈O₁₀

Molecular Weight: 442.378

Accurate Mass: 442.09

Percentage Composition: C 59.73%; H 4.10%; O 36.17%

Biological Source: Isol. from numerous plant spp.

Biological Use/Importance: Shows anti-HIV activity

Melting Point: Mp 257-258° (253°)

Optical Rotation: [α]_D -190 (EtOH). [α]_D²³ -160.6 (c, 0.22 in Me₂CO)

Calculated Log P Data: Log P 1.83 (uncertain value) (calc)

Sigma: E3893

>> **Derivative:** 3-*O*-(3,4-Dihydroxy-5-methoxybenzoyl)

Synonym(s): 3-*O*-(3-Methylgalloyl)epicatechin

CAS Registry Number: 83104-86-3

Molecular Formula: C₂₃H₂₀O₁₀

Molecular Weight: 456.405

Accurate Mass: 456.10565

Percentage Composition: C 60.53%; H 4.42%; O 35.06%

Biological Source: Isol. from *Thea sinensis*

Optical Rotation: [α]_D¹⁴ -168 (c, 1 in EtOH)

>> **Derivative:** 3-*O*-(3,5-Dihydroxy-4-methoxybenzoyl)

Synonym(s): 3-*O*-(4-Methylgalloyl)epicatechin

CAS Registry Number: 108907-44-4

Molecular Formula: C₂₃H₂₀O₁₀

Molecular Weight: 456.405

Accurate Mass: 456.10565

Percentage Composition: C 60.53%; H 4.42%; O 35.06%

Biological Source: Isol. from *Camellia sinensis* var. *assamica* (coml. oolong tea)

Physical Description: Off-white powder + 2/3 H₂O

Optical Rotation: [α]