



>>Variant: (2*R*,2'*R*,3*S*,3'*R*,4*S*)-form

Synonym(s): Procyanidin B<sub>4</sub>. Catechin(4α→8)epicatechin

CAS Registry Number: 29106-51-2

Molecular Formula: C<sub>30</sub>H<sub>26</sub>O<sub>12</sub>

Molecular Weight: 578.528

Accurate Mass: 578.14243

Percentage Composition: C 62.28%; H 4.53%; O 33.19%

Biological Source: Occurs in *Rubus fruticosus* (blackberry) and *Rubus idaeus*

Physical Description: Cryst. (EtOH) (as deca-Ac)

Melting Point: Mp 172-173° (deca-Ac)

Optical Rotation: [α]<sub>D</sub> −194 (EtOH)

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

Synonym(s): 3'-Galloylprocyanidin B<sub>4</sub>

Molecular Formula: C<sub>37</sub>H<sub>30</sub>O<sub>16</sub>

Molecular Weight: 730.634

Accurate Mass: 730.15339

Percentage Composition: C 60.82%; H 4.14%; O 35.04%

Biological Source: Isol. from *Thea sinensis* and bark of *Mallotus japonicus*

Physical Description: Pale brown amorph. powder + 1½H<sub>2</sub>O

Optical Rotation: [α]<sub>D</sub><sup>22</sup> −255.7 (c, 0.56 in Me<sub>2</sub>CO)

>>Variant: (2*R*,2'*S*,3*R*,3'*S*,4*R*)-form

Synonym(s): Epicatechin(4β→8)*ent*-epicatechin

CAS Registry Number: 82262-99-5

Molecular Formula: C<sub>30</sub>H<sub>26</sub>O<sub>12</sub>

Molecular Weight: 578.528

Accurate Mass: 578.14243

Percentage Composition: C 62.28%; H 4.53%; O 33.19%

Biological Source: Isol. from *Chamaerops humilis* and *Phoenix canariensis*

Physical Description: Powder

Optical Rotation: [α]<sub>D</sub><sup>30</sup> +187 (c, 0.24 in MeOH aq.)

>>Variant: (2*R*,2'*R*,3*R*,3'*R*,4*S*)-form

Synonym(s): Epicatechin(4α→8)epicatechin

CAS Registry Number: 67253-04-7

Molecular Formula: C<sub>30</sub>H<sub>26</sub>O<sub>12</sub>

Molecular Weight: 578.528

Accurate Mass: 578.14243

Percentage Composition: C 62.28%; H 4.53%; O 33.19%

Biological Source: Isol. from *Cotoneaster oligantha*

>>Variant: (2*R*,2'*S*,3*S*,3'*R*,4*S*)-form

Synonym(s): Catechin(4α→8)*ent*-catechin

CAS Registry Number: 88314-66-3

Molecular Formula: C<sub>30</sub>H<sub>26</sub>O<sub>12</sub>

Molecular Weight: 578.528

Accurate Mass: 578.14243

Percentage Composition: C 62.28%; H 4.53%; O 33.19%

Physical Description: Powder

Optical Rotation: [α]<sub>D</sub><sup>30</sup> −234 (c, 0.26 in MeOH aq.)