



>>>Derivative: 3,5-Di-*O*-β-D-glucopyranoside

Synonym(s): Cyanin. Cyanenin. Shisonin A. Cyanidin 3,5-diglucoside

CAS Registry Number: 2611-67-8

Molecular Formula: C<sub>27</sub>H<sub>31</sub>O<sub>16</sub><sup>(+)</sup>

Molecular Weight: 611.532

Accurate Mass: 611.161215

Percentage Composition: C 53.03%; H 5.11%; O 41.86%

Biological Source: Isol. from many plants, e.g. *Pelargonium* spp. Originally isol. from cornflowers (*Centaurea cyanus*)

Physical Description: Prismatic needles with greenish lustre (HCl aq.) (as chloride)

Melting Point: Mp 203-204° (chloride)

Optical Rotation: [α]<sub>D</sub> -258 (HCl aq.)

>>>Derivative: 3,5-Bis-*O*-(6-*O*-acetyl-β-D-glucopyranoside)

Synonym(s): Cyanidin 3,5-bis(6-acetylglucoside)

CAS Registry Number: 161992-98-9

Molecular Formula: C<sub>31</sub>H<sub>35</sub>O<sub>18</sub><sup>(+)</sup>

Molecular Weight: 695.607

Accurate Mass: 695.182345

Percentage Composition: C 53.53%; H 5.07%; O 41.40%

Biological Source: Red pigment isol. from the flowers of *Verbena hybrida*

>>>Derivative: 3,5-Di-*O*-oxalyl-β-D-glucopyranoside

Synonym(s): Orchicyanin II

Molecular Formula: C<sub>29</sub>H<sub>31</sub>O<sub>19</sub><sup>(+)</sup>

Molecular Weight: 683.552

Accurate Mass: 683.14596

Percentage Composition: C 50.96%; H 4.57%; O 44.47%

Biological Source: Isol. from various orchids

>>>Derivative: 3,7-Di-*O*-β-D-glucopyranoside

Synonym(s): Cyanidin 3,7-diglucoside. Seranin

CAS Registry Number: 64963-53-7

Molecular Formula: C<sub>27</sub>H<sub>31</sub>O<sub>16</sub><sup>(+)</sup>

Molecular Weight: 611.532

Accurate Mass: 611.161215

Percentage Composition: C 53.03%; H 5.11%; O 41.86%

Biological Source: Isol. from flowers of *Petunia hybrida*, from *Althea rosea* and various orchids

UV: [acid] λ<sub>max</sub> 525 () (MeOH/HCl)

>>>Derivative: 3,7-Di-*O*-oxalyl-β-D-glucopyranoside

Synonym(s): Serapianin

Molecular Formula: C<sub>19</sub>H<sub>31</sub>O<sub>19</sub><sup>(+)</sup>

Molecular Weight: 563.442

Accurate Mass: 563.14596

Percentage Composition: C 40.50%; H 5.55%; O 53.95%

Biological Source: Isol. from various orchids

>>>Derivative: 3,3',5-Tri-*O*-β-D-glucopyranoside

Synonym(s): Cyanidin 3,3',5-triglucoside

CAS Registry Number: 88110-66-1

Molecular Formula: C<sub>33</sub>H<sub>41</sub>O<sub>21</sub><sup>(+)</sup>

Molecular Weight: 773.674

Accurate Mass: 773.21404

Percentage Composition: C 51.23%; H 5.34%; O 43.43%

Biological Source: Isol. from the Bromeliaceae, e.g. *Ananas comosus*