



>>Derivative: 3-*O*-[3,4-Dihydroxycinnamoyl-(→?)-β-D-glucopyranoside], 5-*O*-(di-*O*-malonyl-β-D-glucopyranoside)

CAS Registry Number: 113338-20-8

Molecular Formula: C₄₂H₄₁O₂₄⁽⁺⁾

Molecular Weight: 929.771

Accurate Mass: 929.198785

Percentage Composition: C 54.26%; H 4.44%; O 41.30%

Biological Source: Isol. from *Salvia* spp.

>>Derivative: 3-*O*-[4-Hydroxy-3-methoxy-*E*-cinnamoyl-(→6)-β-D-glucopyranoside], 5-*O*-β-D-glucopyranoside

Molecular Formula: C₃₇H₃₉O₁₈⁽⁺⁾

Molecular Weight: 771.704

Accurate Mass: 771.213645

Percentage Composition: C 57.59%; H 5.09%; O 37.32%

Biological Source: Constit. of *Hyacinthus orientalis*

>>Derivative: 3-*O*-[4-Hydroxy-3-methoxy-*E*-cinnamoyl-(→6)-β-D-glucopyranoside], 5-*O*-(6-*O*-malonyl-β-D-glucopyranoside)

Molecular Formula: C₄₀H₄₁O₂₁⁽⁺⁾

Molecular Weight: 857.751

Accurate Mass: 857.21404

Percentage Composition: C 56.01%; H 4.82%; O 39.17%

Biological Source: Constit. of the flowers of *Hyacinthus orientalis*

Physical Description: Powder

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

Synonym(s): Pelargonin‡, Monardin. Salvinin‡

CAS Registry Number: 17334-58-6

Molecular Formula: C₂₇H₃₁O₁₅⁽⁺⁾

Molecular Weight: 595.533

Accurate Mass: 595.1663

Percentage Composition: C 54.45%; H 5.25%; O 40.30%

Biological Source: Isol. from numerous plant spp.

Physical Description: Fine red needles + 4H₂O (as chloride)

Melting Point: Mp 180 dec.° (anhyd.) (chloride)

Optical Rotation: [α]_D -244

Solubility: Sol. H₂O

Other Data: Orange-red soln. in H₂O turning viol. on standing. MeOH soln. red with green fluor. Prob. ident. with Punicin from pomegranate (*Punica granatum*)

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

Synonym(s): Pelargonidin 3,5-di(6-acetylglucoside)

CAS Registry Number: 161992-99-0

Molecular Formula: C₃₁H₃₅O₁₇⁽⁺⁾

Molecular Weight: 679.607

Accurate Mass: 679.18743

Percentage Composition: C 54.79%; H 5.19%; O 40.02%

Biological Source: Orange-red pigment from the flowers of *Verbena hybrida*

>>Derivative: 3,5-Bis-*O*-(malonylglucoside)

Synonym(s): Pelargonidin 3,5-di(malonylglucoside)

CAS Registry Number: 104078-06-0

Molecular Formula: C₃₃H₃₅O₂₁⁽⁺⁾

Molecular Weight: 767.627

Accurate Mass: 767.16709

Percentage Composition: C 51.63%; H 4.60%; O 43.77%

Biological Source: Isol. from *Dahlia variabilis*