



Synonym(s): Malvidin 5-glucoside 3-rhamnoside

CAS Registry Number: 53925-29-4

Molecular Formula: $C_{29}H_{35}O_{16}^{(+)}$

Molecular Weight: 639.586

Accurate Mass: 639.192515

Percentage Composition: C 54.46%; H 5.52%; O 40.02%

Biological Source: Isol. from *Lathyrus* spp. and *Pisum* spp.

>>**Derivative:** 3-*O*-β-D-Galactopyranoside

Synonym(s): Primulin. Uliginosin

CAS Registry Number: 30113-37-2

Molecular Formula: $C_{23}H_{25}O_{12}^{(+)}$

Molecular Weight: 493.443

Accurate Mass: 493.134605

Percentage Composition: C 55.98%; H 5.11%; O 38.91%

Biological Source: Isol. from many plant spp.

Use/Importance: Antibacterial agent

Physical Description: Bronze needles or prisms + $5\frac{1}{2}H_2O$ (MeOH/HCl) (as chloride)

Sigma: P7522

>>**Derivative:** 3-*O*-β-D-Glucopyranoside

Synonym(s): Malvidin 3-glucoside. Oenin. Ligulin. Enin. Enoside

CAS Registry Number: 7228-78-6

Molecular Formula: $C_{23}H_{25}O_{12}^{(+)}$

Molecular Weight: 493.443

Accurate Mass: 493.134605

Percentage Composition: C 55.98%; H 5.11%; O 38.91%

Biological Source: Pigment of skins of black grapes, also in other plants

Physical Description: Violet cryst. with yellow metallic cast by transmitted light, bronze by reflected light (as chloride)

Optical Rotation: $[\alpha]_D -421$ (0.1% HCl aq.)

>>**Derivative:** 3-*O*-β-D-Glucopyranoside, 5-*O*-(2-*O*-sulfo-β-D-glucopyranoside)

CAS Registry Number: 160206-01-9

Molecular Formula: $C_{29}H_{35}O_{20}S^{(+)}$

Molecular Weight: 735.649

Accurate Mass: 735.144245

Percentage Composition: C 47.35%; H 4.80%; O 43.50%; S 4.36%

Biological Source: Constit. of the flowers of *Babiana stricta*

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

CAS Registry Number: 190908-38-4

Molecular Formula: $C_{31}H_{37}O_{18}^{(+)}$

Molecular Weight: 697.623

Accurate Mass: 697.197995

Percentage Composition: C 53.37%; H 5.35%; O 41.28%

Biological Source: Constit. of *Geranium* var. Johnson's Blue, *Pelargonium* spp. and others

>>**Derivative:** 3-*O*-β-D-Glucopyranoside, 5-*O*-(6-*O*-malonyl-β-D-glucopyranoside)

CAS Registry Number: 160206-02-0

Molecular Formula: $C_{32}H_{37}O_{20}^{(+)}$

Molecular Weight: 741.632

Accurate Mass: 741.187825

Percentage Composition: C 51.83%; H 5.03%; O 43.15%

Biological Source: Constit. of the flowers of *Babiana stricta*