CAS Registry Number: 71973-18-7

Molecular Formula: $C_{21}H_{20}O_9$
Molecular Weight: 416.384
Accurate Mass: 416.110735
Percentage Composition: C 60.58%; H 4.84%; O 34.58%
Biological Source: Isol. from *Cassia javanica* and *Ventilago calyculata*
Melting Point: Mp 200 dec.°

>>**Derivative:** 3-*O*-α-L-Rhamnopyranoside
Synonym(s): Frangulin A. Franguloside

CAS Registry Number: 521-62-0

Molecular Formula: $C_{21}H_{20}O_9$
Molecular Weight: 416.384
Accurate Mass: 416.110735
Percentage Composition: C 60.58%; H 4.84%; O 34.58%
Biological Source: Glycoside present in rhubarb root, alder buckthorn bark (*Rhamnus frangula*) and Cascara sagrada
Biological Use/Importance: Cathartic agent
Physical Description: Cryst.
Melting Point: Mp 228°
UV: [neutral] λ_{max} 225 (ε 33113); 264 (ε 19054); 282 (ε 14125); 300 (ε 9332); 430 (ε 11220) (MeOH) (Berdy)
Other Data: Frangulin, Rhamnoxanthin and Cascarin were mixts. of Frangulins A and B

Sigma: F5382

>>**Derivative:** 3-*O*-(2-*O*-Acetyl-α-L-rhamnopyranoside)

CAS Registry Number: 167696-55-1

Molecular Formula: $C_{23}H_{22}O_{10}$
Molecular Weight: 458.421
Accurate Mass: 458.1213
Percentage Composition: C 60.26%; H 4.84%; O 34.90%
Biological Source: Constit. of the fruit of *Rhamnus prinoides*
Melting Point: Mp 123-125°
Optical Rotation: $[\alpha]_D^{21}$ –104 (c, 0.1 in $CHCl_3$)

>>**Derivative:** 3-*O*-(2,3-Di-*O*-acetyl-α-L-rhamnopyranoside)

CAS Registry Number: 167696-53-9

Molecular Formula: $C_{25}H_{24}O_{11}$
Molecular Weight: 500.458
Accurate Mass: 500.131865
Percentage Composition: C 60.00%; H 4.83%; O 35.17%
Biological Source: Constit. of the fruit of *Rhamnus prinoides*
Physical Description: Gum
Optical Rotation: $[\alpha]_D^{21}$ –56 (c, 0.1 in $CHCl_3$)

>>**Derivative:** 3-*O*-(2,4-Di-*O*-acetyl-α-L-rhamnopyranoside)

CAS Registry Number: 167696-54-0

Molecular Formula: $C_{25}H_{24}O_{11}$
Molecular Weight: 500.458
Accurate Mass: 500.131865
Percentage Composition: C 60.00%; H 4.83%; O 35.17%
Biological Source: Constit. of the fruit of *Rhamnus prinoides*
Melting Point: Mp 228-230°
Optical Rotation: $[\alpha]_D^{21}$ –76 (c, 0.1 in $CHCl_3$)