



**CAS Registry Number:** 71973-18-7

**Molecular Formula:** C<sub>21</sub>H<sub>20</sub>O<sub>9</sub>

**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<sub>21</sub>H<sub>20</sub>O<sub>9</sub>

**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<sub>max</sub> 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<sub>23</sub>H<sub>22</sub>O<sub>10</sub>

**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:** [α]<sub>D</sub><sup>21</sup> -104 (c, 0.1 in CHCl<sub>3</sub>)

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

**CAS Registry Number:** 167696-53-9

**Molecular Formula:** C<sub>25</sub>H<sub>24</sub>O<sub>11</sub>

**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:** [α]<sub>D</sub><sup>21</sup> -56 (c, 0.1 in CHCl<sub>3</sub>)

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

**CAS Registry Number:** 167696-54-0

**Molecular Formula:** C<sub>25</sub>H<sub>24</sub>O<sub>11</sub>

**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:** [α]<sub>D</sub><sup>21</sup> -76 (c, 0.1 in CHCl<sub>3</sub>)