



**Accurate Mass:** 462.116215  
**Percentage Composition:** C 57.14%; H 4.80%; O 38.06%  
**Biological Source:** Constit. of *Cirsium oligophyllum*  
**Physical Description:** Pale yellow powder  
**UV:** [neutral]  $\lambda_{\max}$  275 (); 327 () (MeOH)

>>**Derivative:** 7-*O*- $\beta$ -D-Glucopyranoside  
**Synonym(s):** Homoplataginin. Hispiduloside

**CAS Registry Number:** 17680-84-1

**Molecular Formula:** C<sub>22</sub>H<sub>22</sub>O<sub>11</sub>  
**Molecular Weight:** 462.409  
**Accurate Mass:** 462.116215  
**Percentage Composition:** C 57.14%; H 4.80%; O 38.06%  
**Biological Source:** Isol. from *Plantago* spp., *Salvia* spp., *Scutellaria* sp. and other plant spp.  
**Physical Description:** Yellow needles (EtOH)  
**Melting Point:** Mp 241-242 dec.°

>>**Derivative:** 7-*O*- $\beta$ -D-Glucuronopyranoside  
**Synonym(s):** Hispidulin 7-glucuronide

**CAS Registry Number:** 31105-76-7

**Molecular Formula:** C<sub>22</sub>H<sub>20</sub>O<sub>12</sub>  
**Molecular Weight:** 476.393  
**Accurate Mass:** 476.09548  
**Percentage Composition:** C 55.47%; H 4.23%; O 40.30%  
**Biological Source:** Isol. from *Pedaliium murex* and *Scutellaria* spp.  
**Melting Point:** Mp 220-222°

>>**Derivative:** 7-*O*-[ $\beta$ -D-Xylopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-xylopyranoside]  
**Synonym(s):** Mahuangchiside

**CAS Registry Number:** 261361-51-7

**Molecular Formula:** C<sub>26</sub>H<sub>28</sub>O<sub>14</sub>  
**Molecular Weight:** 564.499  
**Accurate Mass:** 564.14791  
**Percentage Composition:** C 55.32%; H 5.00%; O 39.68%  
**Biological Source:** Constit. of the roots of *Chirita fimbrisepala*. Component of Ma Huang Chi  
**Physical Description:** Yellow cryst. (MeOH)  
**Melting Point:** Mp 212-213°  
**UV:** [neutral]  $\lambda_{\max}$  273 (log  $\epsilon$  3.24); 326 (log  $\epsilon$  3.36) (no solvent reported)

>>**Derivative:** 4'-*O*-[ $\alpha$ -L-Rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranoside]  
**Synonym(s):** Hispidulin 4'-neohesperidoside

**CAS Registry Number:** 152950-72-6

**Molecular Formula:** C<sub>28</sub>H<sub>32</sub>O<sub>15</sub>  
**Molecular Weight:** 608.552  
**Accurate Mass:** 608.174125  
**Percentage Composition:** C 55.26%; H 5.30%; O 39.44%  
**Biological Source:** Constit. of the roots of *Cassia marginata*

>>**Derivative:** 7-*O*-[ $\alpha$ -L-Rhamnopyranosyl-(1 $\rightarrow$ 2)- $\beta$ -D-glucopyranoside]  
**Synonym(s):** Hispidulin 7-neohesperidoside

**CAS Registry Number:** 156186-00-4

**Molecular Formula:** C<sub>28</sub>H<sub>32</sub>O<sub>15</sub>  
**Molecular Weight:** 608.552  
**Accurate Mass:** 608.174125  
**Percentage Composition:** C 55.26%; H 5.30%; O 39.44%  
**Biological Source:** Constit. of the flowers of *Ipomoea purpurea*. Also isol. from *Cirsium japonicum* and *Cirsium rhinoceros*  
**Physical Description:** Yellow needles (EtOAc/petrol)  
**Melting Point:** Mp 220-222° (192-196°)