

### 0005 - Skullcap for Flavonoids by HPLC

**Botanical Name:** *Scutellaria lateriflora*

**Common Names:** Blue Skullcap, Hoodwort, Virginian Skullcap, Mad-dog Skullcap

#### Plant Description:

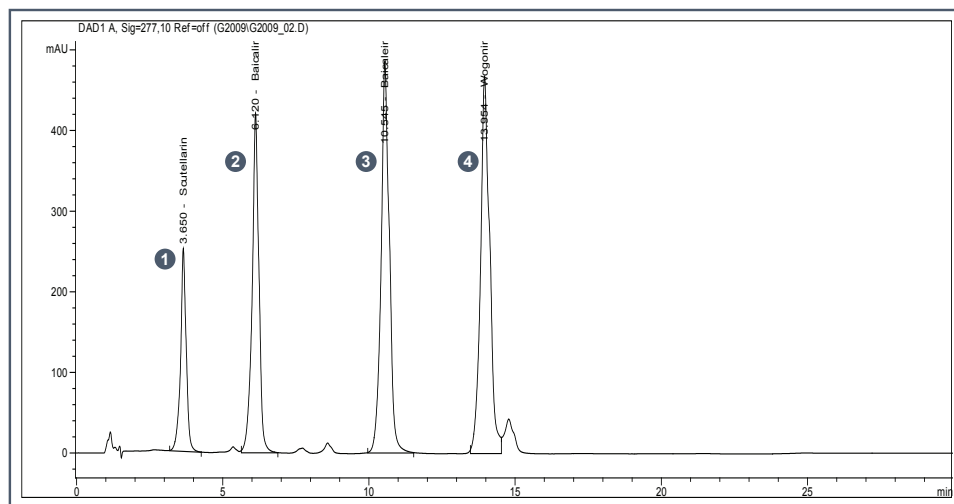
*Scutellaria lateriflora* is a hardy perennial herb native to North America. A wet-land loving species, this plant grows near marshes, meadows and other wet habitats. It is a member of the mint family and can grow 60 to 80cm in height with blue flowers just under 1 cm long. These flowers do not appear at the top of the main stem, but along the length of side branches that grow from leaf axils.



#### Therapeutic Use Overview:

*Scutellaria lateriflora* is used in herbal medicine as a mild sedative and sleep promoter. A wide range of compounds with various uses have been isolated from *Scutellaria* species, with each species containing unique compounds. Baicalin, a phenolic found in the leaves of *Scutellaria lateriflora*, is a known anti-inflammatory and analgesic. Wogonin, another phenolic compound, exhibits anxiolytic properties in mice. Other compounds, flavones in particular, have been reported to show high affinity to benzodiazepine receptor sites exhibiting anxiolytic effects.

#### Representative HPLC Analysis: Mixed Standard Solution



#### Analytes:

① Scutellarein, ② Baicalin, ③ Baicalein, ④ Wogonin

#### Instrument Parameters

**Column:** Phenomenex Synergi Max-RP  
150 x 4.6 mm, 4u

**Detection:** UV-Vis @ 277 nm

**Flow Rate:** 1.5 mL/min

**Injection Volume:** 20 µL

**Temperature:** 25 °C

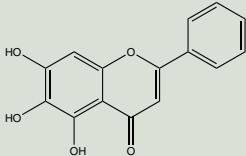
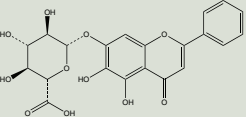
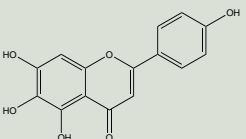
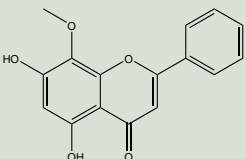
**Mobile Phase A:** 0.1 % H<sub>3</sub>PO<sub>4</sub> (aq)

**Mobile Phase B:** ACN

**Gradient Program**

Time (min)	%A	%B
0	80	20
20	45	55
23	80	20
30	80	20

## Phytochemical Reference Standards

Product Description And Details	Product ID	Qty
 <p>BAICALEIN Grade: P CAS#: [491-67-8] Chemical Formula: C<sub>15</sub>H<sub>10</sub>O<sub>5</sub> FW: 270.25</p>	<p>ASB-00002015-005 ASB-00002015-010 ASB-00002015-025</p>	<p>5mg 10mg 25mg</p>
 <p>BAICALIN Grade: P CAS#: [21967-41-9] Chemical Formula: C<sub>21</sub>H<sub>18</sub>O<sub>11</sub> FW: 446.36</p>	<p>ASB-00002030-005 ASB-00002030-010 ASB-00002030-025</p>	<p>5mg 10mg 25mg</p>
 <p>SCUTELLAREIN Grade: SH CAS#: [529-53-3] Chemical Formula: C<sub>15</sub>H<sub>10</sub>O<sub>6</sub> FW: 286.24</p>	<p>ASB-00019096-005</p>	<p>5mg</p>
 <p>WOGONIN Grade: P CAS#: [632-85-9] Chemical Formula: C<sub>16</sub>H<sub>12</sub>O<sub>5</sub> FW: 284.26</p>	<p>ASB-00023510-005 ASB-00023510-010 ASB-00023510-025</p>	<p>5mg 10mg 25mg</p>

## Reference Standard Kits

Product Name	Contents	Product ID	Qty
SKULLCAP STANDARDS KIT	BAICALEIN(P) BAICALIN(P) SCUTELLAREIN(SH) WOGONIN(P)	KIT-00019575-005	3 x 5mg vials

## Botanical Reference Materials

Product Description	Grade	Product ID	Qty
SKULLCAP (SCUTELLARIA LATERIFLORA) HERB	BRM	ASB-00030190-005	5g
SKULLCAP (CHINESE) (SCUTELLARIA BAICALENSIS) ROOT	XRM	ASB-00030191-005	5g
SKULLCAP (CHINESE) (SCUTELLARIA BAICALENSIS) ROOT	RBRM	ASB-00030740-005	5g

SKULLCAP (CHINESE) CURED (SCUTELLARIA BAICALENSIS) ROOT	RBRM	ASB-00030741-005	5g
SKULLCAP (CHINESE) (SCUTELLARIA BAICALENSIS) ROOT	BRM	ASB-00030873-005	5g
BARBED SKULLCAP (SCUTELLARIA BARBATA) HERB	RGBRM	ASB-00030874-005	5g
SKULLCAP (CHINESE) (SCUTELLARIA BAICALENSIS) ROOT	RGBRM	ASB-00030876-005	5g

## Monographs

Product Description	Grade	Product ID	Qty
AHP SKULLCAP AERIAL MONOGRAPH	BK	ASB-00040820-00B	1 book

## Additional Related Compounds

Product Description And Details	Product ID	Qty
BAICALEIN Grade: RG CAS#: [491-67-8] Chemical Formula: C <sub>15</sub> H <sub>10</sub> O <sub>5</sub> FW: 270.25	ASB-00002016-100	100mg
BAICALEIN-7-METHYLEETHER(RG) Grade: RG CAS#: [29550-13-8] Chemical Formula: C <sub>16</sub> H <sub>12</sub> O <sub>5</sub> FW: 284.28	ASB-00002020-005 ASB-00002020-010	5mg 10mg
BAICALEIN-5,6,7-TRIMETHYLEETHER Grade: RG CAS#: [973-67-1] Chemical Formula: C <sub>18</sub> H <sub>16</sub> O <sub>5</sub> FW: 312.33	ASB-00002025-005 ASB-00002025-010	5mg 10mg
SCUTELLAREIN TETRAMETHYLEETHER Grade: RG CAS#: [1168-42-9] Chemical Formula: C <sub>19</sub> H <sub>18</sub> O <sub>6</sub> FW: 342.35	ASB-00019095-005	5mg
SKULLCAPFLAVONE I Grade: RG CAS#: [41060-16-6] Chemical Formula: C <sub>17</sub> H <sub>14</sub> O <sub>6</sub> FW: 314.29	ASB-00019288-005	5mg