

0074 - Kudzu for Isoflavones by HPLC

Botanical Name: *Pueraria lobata*

Common Names: Kudzu, foot-a-night vine, mile-a-minute vine

Plant Description:

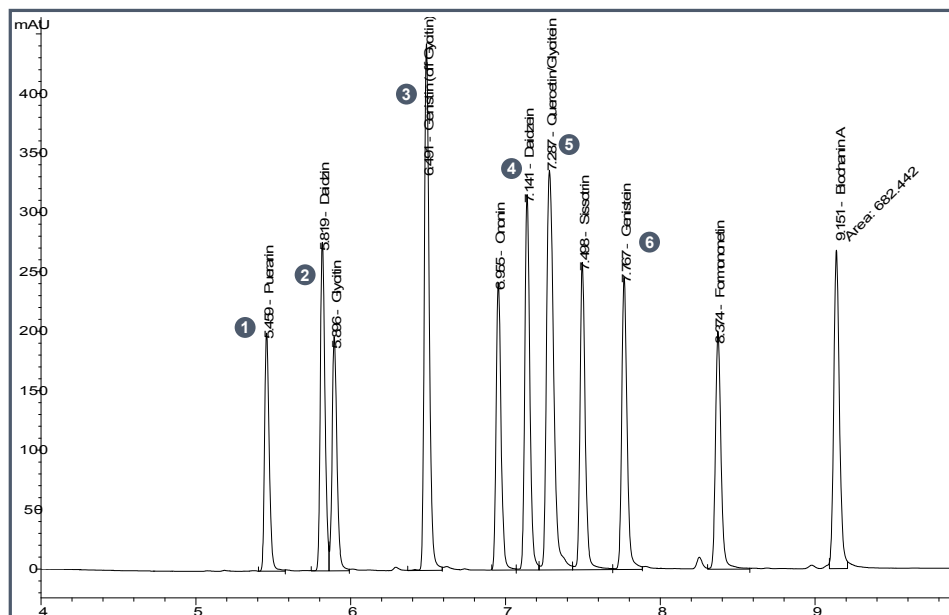
Originally cultivated in Asia, Kudzu has found a home in the Southern United States. Touted as an ornamental vine and erosion control measure, this plant species quickly grew out of control and has become a nuisance to most land owners. Belonging to the legume family, the pods produced by this plant only bear fruit when hanging over another plant. The broad leaves sprout off of vines that can grow up to 12 inches in a single day.



Therapeutic Use Overview:

The leaves of *Pueraria lobata* contain a number of isoflavones and have been used for conditions such as allergies, diarrhea, hypertension, alcoholism or hangovers. Recent research has been conducted to show that these compounds can not only alleviate the symptoms of a hangover, but can also quell alcoholic cravings. The plant is also the unique source for the isoflavone puerarin which has been shown to affect the neurotransmitters serotonin, GABA and glutamate, and has value in treating migraines and cluster headaches.

Representative HPLC Analysis: Mixed Standard Solution



Analytes:

① Puerarin ② Daidzin ③ Genistin ④ Daidzein ⑤ Quercetin ⑥ Genistein

Instrument Parameters

Column: Phenomenex, Luna C18(2)-HST, 100 x 2.0 mm, 2.5µm

Detection: UV-Vis @254 nm

Flow Rate: 0.5 mL/min

Injection Volume: 3 µL

Temperature: 50 °C

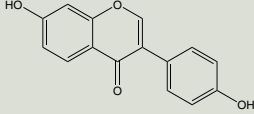
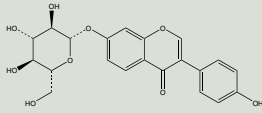
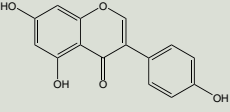
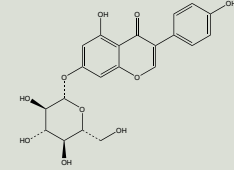
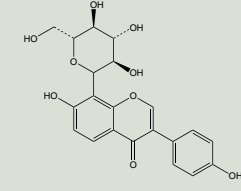
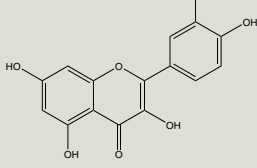
Mobile Phase A: 0.1 % Acetic acid, aq

Mobile Phase B: Acetonitrile

Gradient Program

Time (min)	%A	%B
0.0	95	5
1.0	95	5
10.0	5	95
12.0	5	95
13.0	95	5
18.0	95	5

Phytochemical Reference Standards

Product Description And Details	Product ID	Qty
 <p>DAIDZEIN Grade: AHP CAS#: [486-66-8] Chemical Formula: $C_{15}H_{10}O_4$ FW: 254.25</p>	ASB-00004007-005 ASB-00004007-010 ASB-00004007-025 ASB-00004007-050 ASB-00004007-100 ASB-00004007-500 ASB-00004007-001	5mg 10mg 25mg 50mg 100mg 500mg 1g
 <p>DAIDZIN Grade: P CAS#: [552-66-9] Chemical Formula: $C_{21}H_{20}O_9$ FW: 416.38</p>	ASB-00004014-005 ASB-00004014-010 ASB-00004014-025 ASB-00004014-100	5mg 10mg 25mg 100mg
 <p>GENISTEIN Grade: AHP CAS#: [446-72-0] Chemical Formula: $C_{15}H_{10}O_5$ FW: 270.24</p>	ASB-00007082-005 ASB-00007082-010 ASB-00007082-025 ASB-00007082-100	5mg 10mg 25mg 100mg
 <p>GENISTIN Grade: P CAS#: [529-59-9] Chemical Formula: $C_{21}H_{20}O_{10}$ FW: 432.38</p>	ASB-00007095-005 ASB-00007095-010 ASB-00007095-025 ASB-00007095-100	5mg 10mg 25mg 100mg
 <p>PUERARIN Grade: P CAS#: [3681-99-0] Chemical Formula: $C_{21}H_{20}O_9$ FW: 416.38</p>	ASB-00016385-005 ASB-00016385-010 ASB-00016385-025	5mg 10mg 25mg
 <p>QUERCETIN Grade: AHP CAS#: [117-39-5] Chemical Formula: $C_{15}H_{10}O_7$ FW: 302.24</p>	ASB-00017030-005 ASB-00017030-010 ASB-00017030-025 ASB-00017030-100	5mg 10mg 25mg 100mg

Reference Standards Kits

Product Name	Contents	Product ID	Qty
KUDZU FLAVONOID STANDARDS KIT	DAIDZEIN(AHP)	KIT-00011580-005	6 x 5mg
	DAIDZIN(P)	KIT-00011580-010	6 x 10mg
	GENISTEIN(AHP)		
	GENISTIN(P)		
	PUERARIN(P)		
	QUERCETIN(AHP)		

Additional Related Compounds

Product Description And Details	Product ID	Qty
GENISTEIN Grade: SH CAS#: [446-72-0] Chemical Formula: C ₁₅ H ₁₀ O ₅ FW: 270.24	ASB-00007080-005	5mg
	ASB-00007080-010	10mg
	ASB-00007080-025	25mg
	ASB-00007080-100	100mg
DAIDZEIN Grade: SH CAS#: [486-66-8] Chemical Formula: C ₁₅ H ₁₀ O ₄ FW: 254.25	ASB-00004005-005	5mg
	ASB-00004005-010	10mg
	ASB-00004005-025	25mg
	ASB-00004005-100	100mg
	ASB-00004005-500	500mg
DAIDZEIN Grade: RG CAS#: [486-66-8] Chemical Formula: C ₁₅ H ₁₀ O ₄ FW: 254.25	ASB-00004006-001	1g
	ASB-00004006-005	5g
DAIDZIN Grade: SH CAS#: [552-66-9] Chemical Formula: C ₂₁ H ₂₀ O ₉ FW: 416.38	ASB-00004015-005	5mg
	ASB-00004015-010	10mg
	ASB-00004015-025	25mg
	ASB-00004015-100	100mg
GENISTEIN Grade: RG CAS#: [446-72-0] Chemical Formula: C ₁₅ H ₁₀ O ₅ FW: 270.24	ASB-00007081-005	5mg
	ASB-00007081-001	1g
	ASB-00007081-005	5g
	ASB-00007081-010	10g

Product Description And Details	Product ID	Qty
GENISTIN Grade: SH CAS#: [529-59-9] Chemical Formula: $C_{21}H_{20}O_{10}$ FW: 432.38	ASB-00007098-005 ASB-00007098-010 ASB-00007098-025 ASB-00007098-100	5mg 10mg 25mg 100mg
GENISTIN Grade: RG CAS#: [529-59-9] Chemical Formula: $C_{21}H_{20}O_{10}$ FW: 432.38	ASB-00007096-025 ASB-00007096-001 ASB-00007096-005	5mg 1g 5g
QUERCETIN DIHYDRATE Grade: SH CAS#: [6151-25-3] Chemical Formula: $C_{15}H_{10}O_7$ FW: 338.27	ASB-00017040-100 ASB-00017040-001	100mg 1g
QUERCETIN DIHYDRATE Grade: RG CAS#: [6151-25-3] Chemical Formula: $C_{15}H_{10}O_7$ FW: 338.27	ASB-00017045-500	500mg