

0018 - Danshen for Tanshinones by HPLC

Botanical Name: *Salvia miltiorrhiza*

Common Names: Danshen, Red Sage, Chinese Sage, Tan Shen

Plant Description:

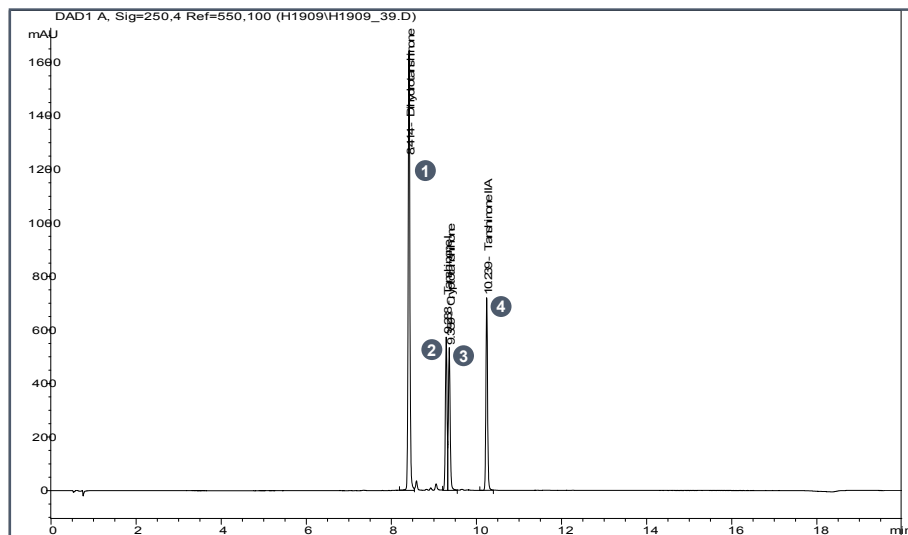
Salvia miltiorrhiza is an herbaceous perennial native to China and Japan. Plants can grow in a myriad of locations but prefer forests, specifically hillsides along stream banks. The plants grow upright to a height of 30-60m with branching stems. Leaves are widely spaced and are simple and divided. There are sticky glands and hairs that cover a group of flowers sticking out from the main branch. The flowers are light purple to lavender blue with a dark purple calyx. The taproot, which is red when extracted, is the part of the plant used for medicinal purposes.



Therapeutic Use Overview:

Widely used in China, and to a lesser extent Japan, *Salvia miltiorrhiza* has been used in the treatment of cardiovascular and cerebrovascular diseases. Tanshinone IIA, one of the most abundant constituents of the root, is under extensive study for its anti-cancer effects. The other tanshinones have been widely used for various cardiovascular disorders, but also exhibit interesting oxidative stress injury treatment in neurodegenerative diseases, as well as improving renal dysfunction and weakening the extent of brain damage in response to ischemia injury.

Representative HPLC Analysis: Mixed Standard Solution



Analytes:

① Dihydro-Tanshinone, ② Tanshinone I, ③ Cryptotanshinone, ④ Tanshinone IIA

Instrument Parameters

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

Detection: UV-Vis

Flow Rate: 0.5 mL/min

Injection Volume: 3 µL

Temperature: 50°C

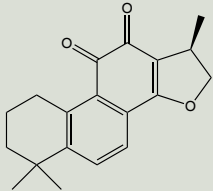
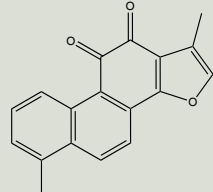
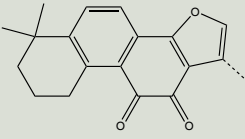
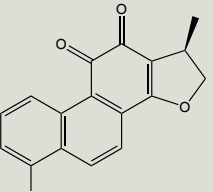
Mobile Phase A: CAN

Mobile Phase B: 0.1% H₃PO₄

Gradient Program

Time (min)	%A	%B
0	20	80
1	20	80
8	80	20
10	95	5
15	95	5
16	20	80
20	20	80

Phytochemical Reference Standards

Product Description And Details	Product ID	Qty
 <p>TANSHINONE, CRYPTO Grade: P CAS#: [35825-57-1] Chemical Formula: C₁₉H₂₀O₃ FW: 296.36</p>	ASB-00020041-005 ASB-00020041-010	5mg 10mg
 <p>TANSHINONE I Grade: P CAS#: [568-73-0] Chemical Formula: C₁₈H₁₂O₃ FW: 276.29</p>	ASB-00020042-005 ASB-00020042-010	5mg 10mg
 <p>TANSHINONE IIA Grade: P CAS#: [568-72-9] Chemical Formula: C₁₉H₁₈O₃ FW: 294.34</p>	ASB-00020043-005 ASB-00020043-010 ASB-00020043-025	5mg 10mg 25mg
 <p>TANSHINONE, DIHYDRO Grade: P CAS#: [87205-99-0] Chemical Formula: C₁₈H₁₄O₃ FW: 278.3</p>	ASB-00020044-005 ASB-00020044-010	5mg 10mg

Reference Standard Kits

Product Name	Contents	Product ID	Qty
DANSHEN TANSHINONE STANDARDS KIT	TANSHINONE I(P)	KIT-00004024-005	4 x 5mg vials
	TANSHINONE IIA(P)	KIT-00004024-010	4 x 10mg vials
	TANSHINONE, CRYPTO(P)		
	TANSHINONE, DIHYDRO(P)		

Botanical Reference Materials

Product Description	Grade	Product ID	Qty
RED SAGE (SALVIA MILTIORRHIZA) ROOT	BRM	ASB-00031077-005	5g

Additional Related Compounds

Product Description And Details	Product ID	Qty
ISOFERULIC ACID Grade: P CAS#: [537-73-5] Chemical Formula: C ₁₀ H ₁₀ O ₄ FW: 194.19	ASB-00009251-025 ASB-00009251-100	25mg 100mg
ROSMARINIC ACID Grade: P CAS#: [20283-92-5] Chemical Formula: C ₁₈ H ₁₆ O ₈ FW: 360.31	ASB-00018370-005 ASB-00018370-010 ASB-00018370-025	5mg 10mg 25mg
SALVIANOLIC ACID B Grade: P CAS#: [115939-25-8] Chemical Formula: C ₃₆ H ₃₀ O ₁₆ FW: 718.62	ASB-00019560-005 ASB-00019560-010 ASB-00019560-025	5mg 10mg 25mg
CHEBULINIC ACID Grade: P CAS#: [5655-61-8] Chemical Formula: C ₄₁ H ₃₂ O ₂₇ FW: 196.29	ASB-00002357-001 ASB-00002357-100	1g 100mg
EUCALYPTOL(1,8-CINEOLE) Grade: SG CAS#: [470-82-6] Chemical Formula: C ₁₀ H ₁₈ O FW: 154.25	ASB-00003385-005 ASB-00003385-010	5mg 10mg
HOMOORIENTIN(Isoorientin) Grade: SH CAS#: [470-82-6] Chemical Formula: C ₂₁ H ₂₀ O ₁₁ FW: 448.38	ASB-00008320-005 ASB-00008320-010	5mg 10mg
ISOVITEXIN Grade: P CAS#: [38953-85-4] Chemical Formula: C ₂₁ H ₂₀ O ₁₀ FW: 432.38	ASB-00009630-005 ASB-00009630-010	5mg 10mg