

### 0004 - Turmeric for Curcuminoids by HPLC

**Botanical Name:** *Curcuma longa*

**Common Names:** Curcuma, Turmeric, Ukon, Goerati, Kakoenji, Kondin, Kunir, Kunyit

#### Plant Description:

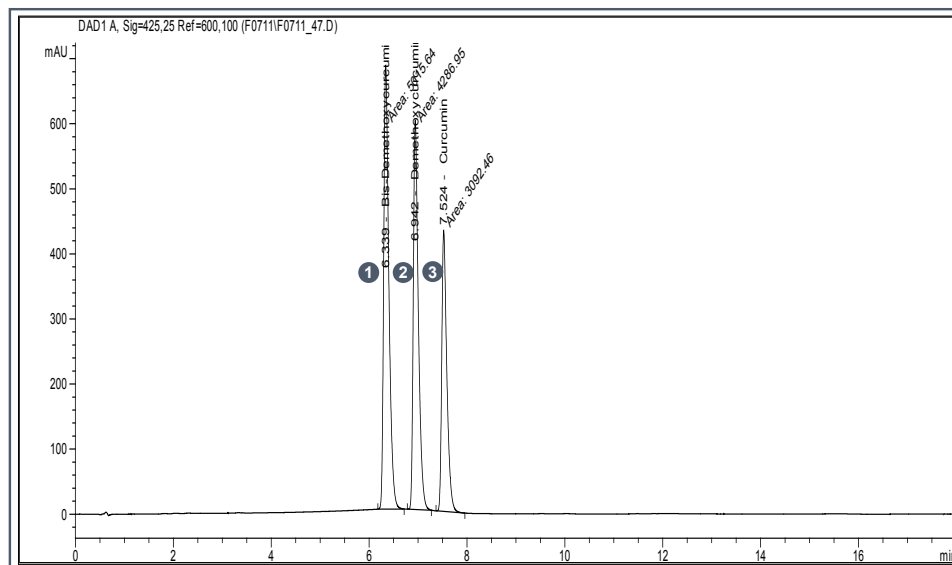
*Curcuma longa* grows wild in the forests of Southeast Asia. This perennial plant reaches to a height of about 3 to 5 feet and has deep orange roots or tubers. The leaves are long, smooth uniform green and tapering at each end. The rhizomes or root tubers are powdered to obtain turmeric powder.

#### Therapeutic Use Overview:

*Curcuma longa* is traditionally used in its dried, powdered form as a food colorant and spice. The rhizomes can be used fresh or boiled and stored in hot ovens which gives the material its characteristic orange color. In traditional medicine, *Curcuma longa* has been used as an anti-inflammatory agent and remedy for gastrointestinal discomfort associated with irritable bowel syndrome and other digestive disorders. It has also been used as an anti-microbial.



#### Representative HPLC Analysis: Mixed Standard Solution



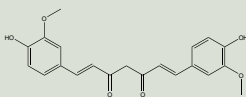
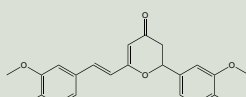
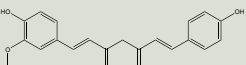
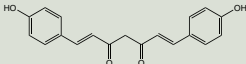
#### Analytes:

① Bis-Demethoxycurcumin, ② Demethoxycurcumin, ③ Curcumin

#### Instrument Parameters

<b>Column:</b>	Phenomenex Luna C18(2) -HST, 100 x 2.0 mm, 2.5 μm	
<b>Detection:</b>	UV-Vis @ 425 nm	
<b>Flow Rate:</b>	0.500 mL/min	
<b>Injection Volume:</b>	3 μL	
<b>Temperature:</b>	50 °C	
<b>Mobile Phase A:</b>	ACN	
<b>Mobile Phase B:</b>	H <sub>2</sub> O	
<b>Gradient Program</b>		
Time (min)	%A	%B
0	35	65
1	35	65
9	55	45
10	95	5
13	95	5
14	35	65
18	35	65

## Phytochemical Reference Standards

Product Description And Details	Product ID	Qty
 <p>CURCUMIN Grade: P CAS#: [458-37-7] Chemical Formula: C<sub>21</sub>H<sub>20</sub>O<sub>6</sub> FW: 368.38</p>	ASB-00003926-005 ASB-00003926-010 ASB-00003926-025 ASB-00003926-100	5mg 10mg 25mg 100mg
 <p>CYCLOCURCUMIN Grade: P CAS#: [153127-42-5] Chemical Formula: C<sub>21</sub>H<sub>20</sub>O<sub>6</sub> FW: 368.38</p>	ASB-00003969-005 ASB-00003969-010	5mg 10mg
 <p>DEMETHOXYCURCUMIN Grade: P CAS#: [22608-11-3] Chemical Formula: C<sub>20</sub>H<sub>18</sub>O<sub>5</sub> FW: 338.36</p>	ASB-00004230-005 ASB-00004230-010 ASB-00004230-025	5mg 10mg 25mg
 <p>DEMETHOXYCURCUMIN, BIS - Grade: P CAS#: [24939-16-0] Chemical Formula: C<sub>19</sub>H<sub>16</sub>O<sub>4</sub> FW: 308.33</p>	ASB-00004231-005 ASB-00004231-010 ASB-00004231-025	5mg 10mg 25mg

## Reference Standard Kits

Product Name	Contents	Product ID	Qty
TURMERIC (CURCUMIN) STANDARDS KIT	CURCUMIN(P) DEMETHOXYCURCUMIN(P) DEMETHOXYCURCUMIN, BIS-(P)	KIT-00020593-005 KIT-00020593-010 KIT-00020593-025	3 x 5mg vials 3 x 10mg vials 3 x 25mg vials

## Botanical Reference Materials

Product Description	Grade	Product ID	Qty
CHINESE TURMERIC (CURCUMA PHAEOCAULIS) RHIZOME	RGBRM	ASB-00030983-005	5g
TURMERIC (CURCUMA LONGA) RHIZOME	VBRM	ASB-00030963-005	5g
TURMERIC (CURCUMA LONGA) RHIZOME [WHOLE/CUT]	VBRM	ASB-00031213-500	500mg
TURMERIC (CURCUMA LONGA) ROOT	RGBRM	ASB-00031080-005	5g
TURMERIC (ERODE GRADE) (CURCUMA LONGA) ROOT	RGBRM	ASB-00030811-005	5g
TURMERIC (NIZAMABAD GRADE) (CURCUMA LONGA) ROOT	RGBRM	ASB-00030812-005	5g
TURMERIC (SANGLI GRADE) (CURCUMA LONGA) ROOT	RGBRM	ASB-00030813-005	5g

## Additional Related Compounds

Product Description And Details	Product ID	Qty
CURCUMIN	ASB-00003925-001	1mg
Grade: RG	ASB-00003925-005	5mg
CAS#: [458-37-7]	ASB-00003925-100	100mg
Chemical Formula: $C_{21}H_{20}O_6$	ASB-00003925-101	1kg
FW: 368.3		