

# PHYTOR

**Consulting in Human Health, Toxicology & Regulatory Affairs**

*Phytor Ltd.*

*Consultant: Dr. Yehoshua Maor (Ph.D, M.Sc.,B.Pharm.)*

*15, Ya'akov Even Chen St.*

*9313062 Jerusalem – ISRAEL*

*Phone: +972-2-6711-911*

*Fax: +972-153-2-6711-911*

*e-mail: [phytor1@gmail.com](mailto:phytor1@gmail.com)*

Jerusalem, Israel      June 19, 2019

## Glabridin determination using UPLC

Client: The 123 diet

Instrument:                    Ultra-Performance Liquid Chromatography of Waters with PDA  
and MS detector

Chromatographic conditions:

Column:                            ACQUITY UPLC BEH C18/(50 x 2.1 mm, 1.7  $\mu$ m),  
Waters

Mobile phase:                    A: 0.1% formic acid in water  
B: 0.1% formic acid in acetonitrile

Gradient conditions:

#	Time (mins)	A %	B %
1	0	90	10
2	10	20	80
3	11	0	100
4	14	0	100
5	15	90	10
6	18	90	10

Flow rate:                            0.4 mL/min

Detection                            scanning from 210-500 nm using PDA  
full-scan using electrospray ionization (+ ve & -ve),  
range of 170-1100 Da.

Injection volume                    1  $\mu$ L

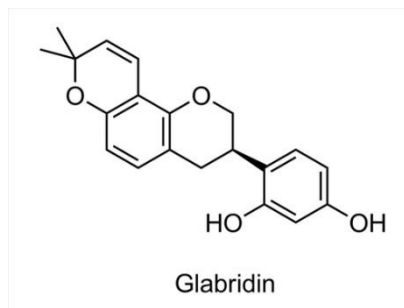
Column temperature:                40°C

PHYTOR Ltd.  
15, YA'AKOV EVEN CHEN ST.  
JERUSALEM 9313062 ISRAEL  
Sample temperature

PHYTOR

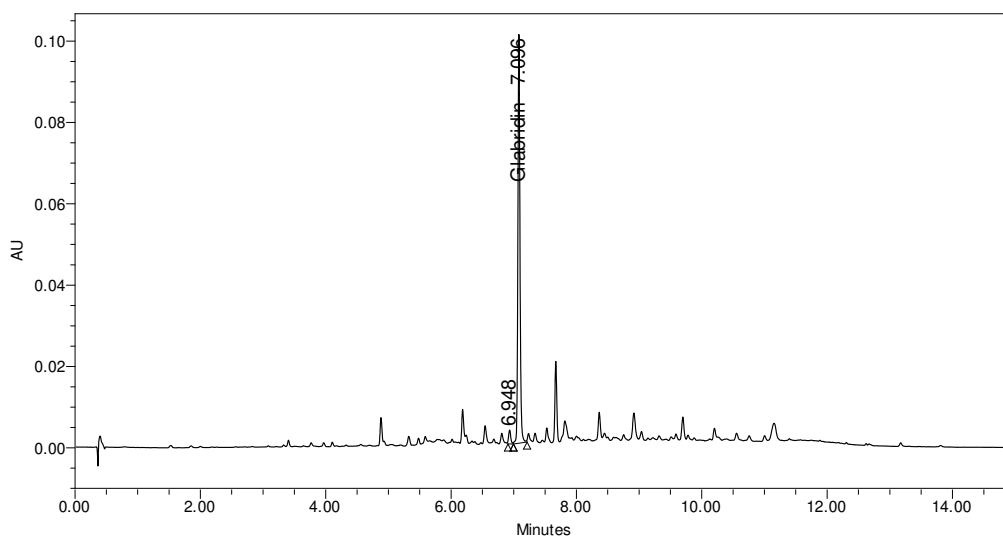
TEL: + 972 2 6711911  
FAX: +972 1532 6711911  
phytor1@gmail.com

25°C



Chemical formula:  $C_{20}H_{20}O_4$   
MW =  $324.376 \text{ g}\cdot\text{mol}^{-1}$

### 123 sample ליקוריץ פלוס:



	Peak Name	RT	Area	% Area	Height	Amount	Units
1		6.948	7002	2.98	3215		
2	Glabridin	7.096	228032	97.02	100363	39.980	ppm

PHYTOR Ltd.  
15, YA'AKOV EVEN CHEN ST.  
JERUSALEM 9313062 ISRAEL



TEL: + 972 2 6711911  
FAX: +972 1532 6711911  
phytor1@gmail.com

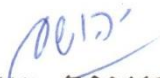
**Summary of the results:**

<b>Sample</b>	<b>Glabridin (% w/w)</b>	<b>Glycyrrhizin</b>
ליקוריץ פלוס 123 אצווה B12719	3.99	Negligible

<b>Sample</b>	<b>Glabridin (per capsule)</b>	<b>Glycyrrhizin (per capsule)</b>
ליקוריץ פלוס 123 אצווה B12719	7.98 mg	Negligible

ד"ר יהושע מאור, PhD

יועץ בכיר בטוקסיקולוגיה ופרמקולוגיה

  
פיטאור בע"מ  
514486240 .פ.ח  
PHYTOR LTD.