

## Certificate of Analysis

June 2, 2020

page 1 of 1.

Listed below are the results for the Radiocarbon ( $^{14}\text{C}$ ) and Stable Isotope Ratio ( $\delta^{13}\text{C}$  and  $\delta\text{D}$ ) analysis for following samples received by our laboratory on May 21, 2020 and completed on June 2, 2020.

Sample	Lot	$^{14}\text{C}$	$\pm 1 \sigma$	$\delta^{13}\text{C}$	$\pm 1 \sigma$	$\delta\text{D}$	$\pm 1 \sigma$
Curcumin 95%	BMI20201315	13.66	0.08	-29.20	0.29	-80	1

$^{14}\text{C}$  activity is in disintegrations per minute per gram carbon (dpm/g C). ( $\pm 1 \sigma$ )

$\delta^{13}\text{C}$  ( $^{13}\text{C}/^{12}\text{C}$ ) is in parts per mil (‰) relative to the international standard PDB. ( $\pm 1 \sigma$ )

$\delta\text{D}$  (D/H) is in parts per mil (‰) relative to the international standard V-SMOW. ( $\pm 1 \sigma$ )

Calculation of uncertainty and methods provided upon request.

The  $^{14}\text{C}$  activity of Curcumin 95% Lot BMI20201315 is equivalent to 100% of the 2019 and present day  $^{14}\text{C}$  reference activity 13.6 dpm/gC. This indicates no addition or dilution with fossil fuel derived material to this sample.

If we can be of any further assistance, or if you would like to discuss these results please do not hesitate to call.

Authorized by,



Director

