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Certificate of Analysis

March 7, 2023

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Evolved by Nature, Inc.
196 Boston Ave
Medford, MA 02155

Listed below are the results for the ASTM method D6866-22 Radiocarbon (¹⁴C) determination with the stable carbon isotope ratio ($\delta^{13}\text{C}$) analyses and their correction for the following sample received by our laboratory on 2/15/2023 and completed on 2/26/2023.

Sample ID/USDA#	¹⁴ C (Meas.) (pMC)	SD	$\delta^{13}\text{C}$ (‰ VPDB)	¹⁴ C (Corr.) (pMC)	% Biobase Carbon	SD
Activated silk TM L1 System solid, no lot#	75.14	0.25	-21.17	74.56	75	1

Percent Biobased Carbon is determined from the measured ¹⁴C in percent Modern Carbon (pMC) and corrected for isotopic fractionation based on measured $\delta^{13}\text{C}$ value (‰ V-PDB). The corrected ¹⁴C activity in pMC is then divided by the 2018 reference ¹⁴C activity of 100.0 pMC, which represents the equivalence to the 1950 ¹⁴C reference activity of 13.56 dpm/gC corrected for bomb-produced ¹⁴C, and finally multiplied times 100. The % Biobase Carbon and Standard Deviation (SD) are rounded to the nearest integer. Measured ¹⁴C is normalized using NIST Standard Reference Material 4990C Oxalic acid.

Authorized by,

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Certificate#: [EVOLVEDBYNATURE_8_2029]



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