Keystone

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CERTIFICATE NO.
PL–26–00147

VERIFICATION KEY
S9DTMMT3

Scan or enter both at prymalab.net/testing/verify

CERTIFICATE OF ANALYSIS · LOT RELEASE · ISSUED FOR KEYSTONE

Wolverine Blend 10+10 mg

Lot **PL-2610-025** · Lyophilized co-blend powder · Label claim **10 + 10 mg/vial** · Distributed as **BPC-157 / TB-500 20 mg**

TESTED IN-HOUSE BY PRYMALAB

In-house analytical result, not an independent third-party test

LOT / BATCH NUMBER	DATE MADE	DATE OF ANALYSIS	DATE ISSUED
PL–2610–025	**2026-10-01**	**2026-10-02**	**2026-10-16**
RETEST / EXPIRY	**UNITS IN LOT / SAMPLED**	**STORAGE**	**CERTIFICATE TYPE**
2028-10-01	**205 / 2**	–20 °C, desiccated, dark	Lot COA, 2 pages

COMPOUND
Wolverine Blend
BPC-157 + TB-500 co-lyophilized 1:1 blend

CAS NUMBER
137525-51-0 · 77591-33-4

MOLECULAR FORMULA
—

THEORETICAL MASS (AVG.)
1,419.55 · 4,963.44 Da (BPC-157 / TB-500)

COMPOSITION AND SEQUENCES
BPC-157: GEPPPGKPADDAGLV · **TB-500**: Ac–43–aa Tbeta4

PURITY · RP-HPLC, AREA %
99.60%
Lowest component (BPC-157) • specification ≥ 99.0% for every component

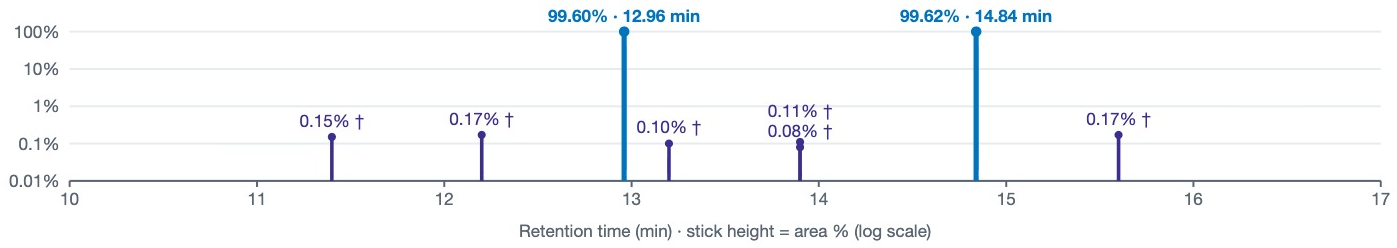
IDENTITY · COMPONENTS CONFIRMED
2 / 2
Components confirmed by LC-MS within ± 1.0 Da: 1,419.56 / 4,963.15 Da

OVERALL CONCLUSION
PASS
Meets every specification for the tests performed

TEST	METHOD	SPECIFICATION	RESULT	CONCLUSION
BPC-157: purity · largest impurity · mass	RP-HPLC 214 nm (area%); LC-MS, ESI+	≥ 99.0% · ≤ 1.0% · ± 1.0 Da	99.60% · 0.17% · 1,419.56 Da	**PASS**
TB-500: purity · largest impurity · mass	RP-HPLC 214 nm (area%); LC-MS, ESI+	≥ 99.0% · ≤ 1.0% · ± 1.0 Da	99.62% · 0.17% · 4,963.15 Da	**PASS**
Water content	Karl Fischer	≤ 5.0%	2.10%	**PASS**
Bacterial endotoxin	LAL, kinetic	≤ 5.0 EU/mg	0.253 EU/mg	**PASS**
Sterility	USP <71>, 14-day	No growth	No growth	**PASS**

1 HPLC CHROMATOGRAM

Data file: PL-2610-025-HPLC.raw · Column C18, 150 × 4.6 mm · UV 214 nm



Peak plot drawn from the integrated peak table (area %, log scale); it is not the instrument trace, which is retained in PL-2610-025-HPLC.raw. † Nominal reference retention time for the assigned impurity; the main-peak RT is observed in this lot. Area % is per component (each component main peak + its impurities = 100%).

For laboratory research use only. Not for human or veterinary use.

2 HPLC METHOD · PL-2610-025-HPLC.RAW

INSTRUMENT
Waters Alliance e2695

DATA SYSTEM
Empower 3

DETECTOR
UV absorbance

DETECTION WAVELENGTH
214 nm

COLUMN
C18, 150 × 4.6 mm, 3.5 µm

MOBILE PHASE A
0.1% TFA in water

MOBILE PHASE B
0.1% TFA in MeCN

GRADIENT
5–95% B over 25 min (linear)

FLOW RATE
1.0 mL/min

COLUMN TEMPERATURE
40 °C

INJECTION VOLUME
10 µL

3 GRADIENT PROGRAM

TIME (MIN)	% A	% B
0.0	95	5
25.0	5	95

4 PEAK TABLE

PEAK	RT (MIN)	AREA	AREA %
1	11.40 †	—	0.15
2	12.20 †	—	0.17
3	**12.96**	**—**	**99.60**
4	13.20 †	—	0.10
5	13.90 †	—	0.08
6	13.90 †	—	0.11
7	14.84	—	99.62
8	15.60 †	—	0.17
Total		—	100.00 per component

Main peaks: 3 BPC-157 · 7 TB-500; all other peaks are the assigned impurities of the neighbouring component · area % within each component (main + impurities = 100% per component) · † nominal reference RT · Purity = main peak area ÷ total integrated area × 100, to two decimals; main peak shaded.

5 IDENTITY BY MASS SPECTROMETRY

INSTRUMENT
Waters SQD

IONIZATION / MODE
ESI, positive

DECONVOLUTED MASS
1,419.56 / 4,963.15 Da

THEORETICAL MASS
1,419.55 / 4,963.44 Da

ORDER
BPC-157 / TB-500

DIFFERENCE
+0.01 / −0.29 Da

DATA FILE
PL-2610-025-MS.d

ACCEPTANCE
Within ± 1.0 Da (each component)

6 ADDITIONAL TESTS

TEST	PERFORMED BY	DATE	REPORT / FILE
Water content (Karl Fischer)	PrymaLab Analytical	2026-10-02	—
Endotoxin (LAL, kinetic)	PrymaLab Analytical	2026-10-02	—
Sterility (USP <71>, day-14 read-out)	PrymaLab Analytical	2026-10-16	—

A test with no row here was not performed on this lot. Outside-laboratory reports, when used, are attached and named below.

7 REVIEW AND APPROVAL

D. Reynolds
Analyst · performed the testing
Date: 2026-10-16

S. Calloway
Reviewer · checked against raw data
Date: 2026-10-16

M. Phelps
Lab Director · approved for release
Date: 2026-10-16

Raw data retained at: Empower 3, project PL-2610, archive PL-ARC-2026; 7 years. Outside laboratory reports attached: None

This certificate applies only to the lot named above and describes the units sampled from it; it is not a guarantee for any other lot. Results were obtained by PrymaLab LLC's own laboratory (PrymaLab Analytical) and are not an independent third-party test unless an outside report is attached. This copy is issued for Keystone, a distributor of the lot; the brand shown does not change the laboratory, the method or the results. Reference values (CAS, formula, theoretical mass, sequence) are literature values for the named compound. Authenticity: scan the QR code or enter certificate number PL-26-00147 and key S9DTMMT3 at prymalab.net/testing/verify; any copy that does not match the record shown there is not a PrymaLab certificate. PrymaLab LLC products are supplied for laboratory research use only and not for human or veterinary use.