



## CERTIFICATE OF ANALYSIS

Issued by an ISO/IEC 17025-accredited laboratory · raw data appended (page 2)

PASS

QC released for dispatch



Scan to verify

FOXO4-DRI — 10mg

FOXO4-D-Retro-Inverso

## 1. PRODUCT IDENTIFICATION

|                      |                                      |                  |                          |
|----------------------|--------------------------------------|------------------|--------------------------|
| Synonym              | FOXO4-D-Retro-Inverso                | Label claim      | 10mg                     |
| Sequence / structure | Retro-inverso D-amino-acid construct | Lot / Batch      | ZX260512-422 / B36910    |
| Mol. formula         | C228H388N86O64                       | Manufacture date | 23 May 2026              |
| Mol. weight          | 5358.05 g/mol                        | Date of analysis | 4 Jun 2026               |
| CAS number           | 2460055-10-9                         | Storage          | -20 °C, dark, desiccated |
| Salt form            | Acetate salt                         |                  |                          |

## 2. ANALYTICAL TEST RESULTS

| Test                 | Method                   | Specification                          | Result                                | Verdict |
|----------------------|--------------------------|----------------------------------------|---------------------------------------|---------|
| Appearance           | Visual                   | White/off-white powder                 | White to off-white lyophilized powder | PASS    |
| Identity (ESI-MS)    | LC-MS                    | Matches 5358.05 Da                     | 5358.05 Da ( $\Delta$ 0 ppm)          | PASS    |
| Purity               | RP-HPLC, UV 220 nm       | $\geq 98.0\%$ area                     | 99.81%                                | PASS    |
| Related substances   | RP-HPLC                  | Single $\leq 1.0$ / Total $\leq 2.0\%$ | 0.09 / 0.19%                          | PASS    |
| Water content        | Karl Fischer (USP <921>) | $\leq 8.0\%$                           | 1.8%                                  | PASS    |
| Counter-ion: acetate | Ion chromatography       | Report (3.0–15.0%)                     | 8.1%                                  | PASS    |
| Net peptide content  | Amino-acid analysis      | $\geq 80.0\%$                          | 88.4%                                 | PASS    |
| Bacterial endotoxin  | LAL kinetic (USP <85>)   | $< 5.0$ EU/mg                          | 0.02 EU/mg                            | PASS    |
| Heavy metals         | ICP-MS (ICH Q3D)         | Conforms                               | Conforms                              | PASS    |

## CONCLUSION

All tested parameters CONFORM to the acceptance specifications. The batch is of high chromatographic purity ( $\geq 98\%$ ) with an impurity profile, identity and residual/contaminant results meeting pharmaceutical-grade quality requirements. Material released. Supporting RP-HPLC chromatogram and ESI-MS spectrum are appended on page 2.

DSY.

Dr. Sun Yan

Analyst · 4 Jun 2026 · Zhongxi Research Institute

DFH.

Dr. Fang Hong (QC Manager)

Approved by · 4 Jun 2026 · Zhongxi Research Institute



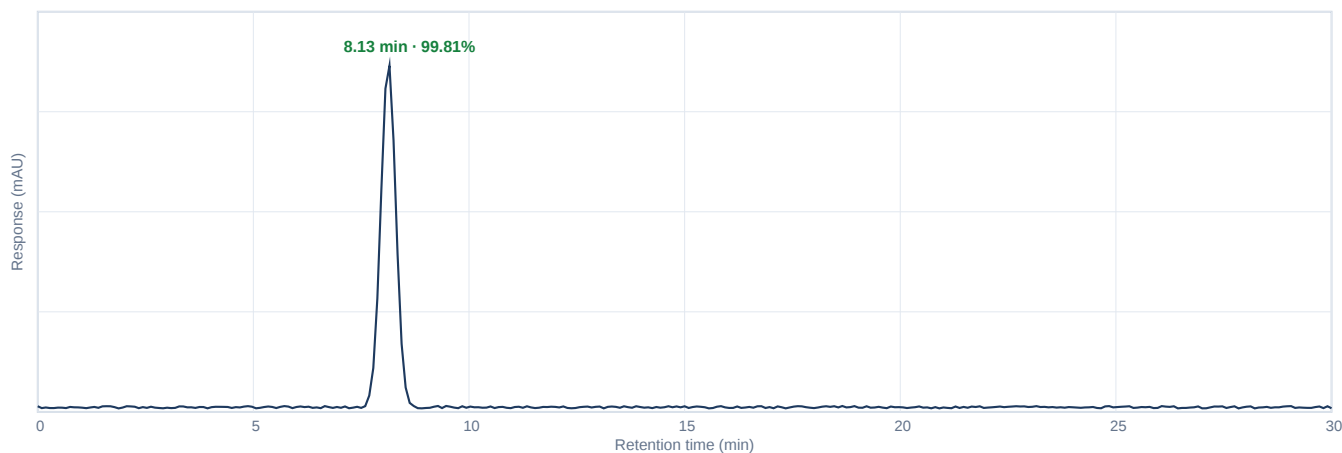
## APPENDIX — ANALYTICAL RAW DATA

FOXO4-DRI 10mg · Lot ZX260512-422 · Cert. ZXR-COA-2026-98003



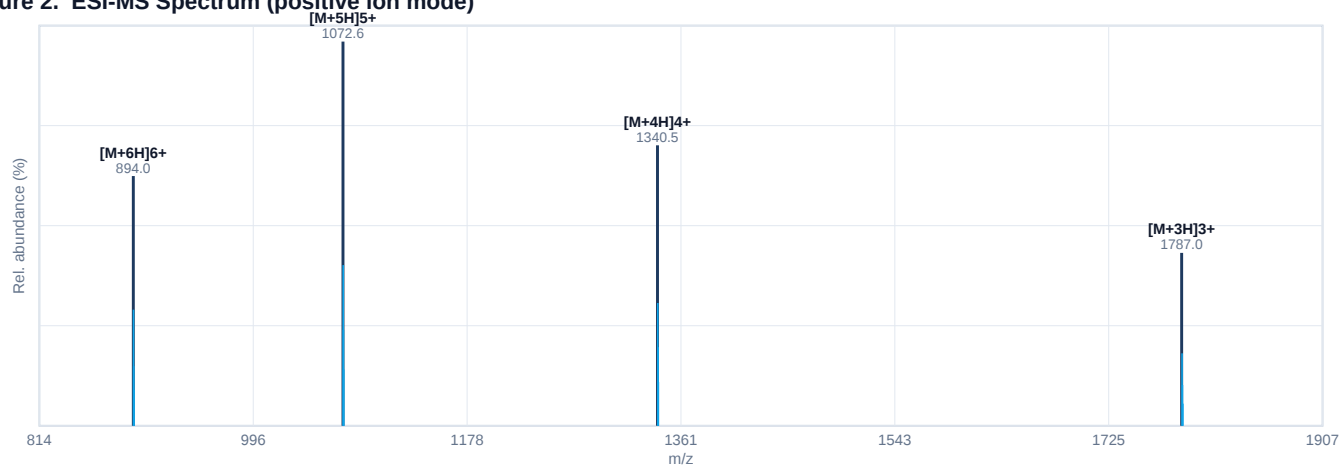
Scan to verify

Figure 1. RP-HPLC Chromatogram (UV 220 nm)



| Peak # | RT (min) | Area (μV·s) | Area % | Assignment                   |
|--------|----------|-------------|--------|------------------------------|
| 1      | 8.13     | 996263      | 99.81  | Main (target)                |
| 2      | 9.47     | 897         | 0.09   | Impurity / related substance |
| 3      | 18.70    | 790         | 0.08   | Impurity / related substance |
| 4      | 19.98    | 185         | 0.02   | Impurity / related substance |

Figure 2. ESI-MS Spectrum (positive ion mode)



## Interpretation

Identity confirmed by ESI-MS. Observed ions  $[M+3H]^3+$  1787.0,  $[M+4H]^4+$  1340.5,  $[M+5H]^5+$  1072.6,  $[M+6H]^6+$  894.0 deconvolute to a neutral monoisotopic-average mass of 5358.05 Da (theoretical 5358.05 Da; mass error 0 ppm), consistent with FOXO4-DRI. No co-eluting species above 0.5% indicative of misidentification.

Methods — RP-HPLC: Agilent 1260 Infinity II; Zorbax SB-C18 4.6×250 mm, 5 μm; A: 0.1% TFA in water, B: 0.1% TFA in MeCN; 10–70% B over 30 min; 1.0 mL/min; 25 °C; 20 μL injection. MS: AB Sciex TripleTOF, ESI+, capillary 4.5 kV, deconvolution by Bio Tool Kit. KF: Metrohm 901. IC: Thermo Dionex ICS-6000. ICP-MS: Agilent 7900.