

Supplementary Material: Cysteamine Eye Drops in Hyaluronic Acid Packaged in Innovative Single-Dose Systems, Part II: Long-Term Stability and Clinical Ocular Biopermanence

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Table S1. Inclusion and exclusion criteria for participation in the study.

| Inclusion criteria |
|------------------------------------------------------------------------------------------------------|
| Age between 18-40 years |
| Signed informed consent |
| DEQ5 <6 |
| Negative staining or 1 with fluorescein or indocyanine green |
| Exclusion criteria |
| Active ocular pathologies or history of conjunctival, scleral, and corneal disease |
| Active ocular treatment |
| Allergies or sensitivities to eye drop components. |
| Previous ocular surgeries within the last year or general surgeries that may affect the measurements |
| Use of contact lenses within the last 24 hours |
| Regular use of medical devices for eye care (artificial tears in the last 24 hours) |
| Diagnosis of dry eye disease |
| Symptoms or signs of dry eyes |
| Thyroid problems |
| Diabetes mellitus |

DEQ5: Five-item Dry Eye Questionnaire

Table S2. Descriptive statistics of Tear Meniscus Height (Mean and Sd displayed for parametric variables). Day 0: unfrozen formulation; Day 30: 30-day frozen formulation; Day 120: 120-day frozen formulation.

| Time (min) | Mean ± sd (mm) Day 0 | Mean ± sd (mm) Day 30 | Mean ± sd (mm) Day 120 |
|------------|-------------------------|--------------------------|---------------------------|
| Baseline | 0.293 ± 0.072 | 0.285 ± 0.055 | 0.262 ± 0.069 |
| 2 | 0.474 ± 0.090 | 0.449 ± 0.157 | 0.420 ± 0.121 |
| 5 | 0.372 ± 0.099 | 0.396 ± 0.116 | 0.353 ± 0.098 |
| 10 | 0.324 ± 0.079 | 0.322 ± 0.091 | 0.315 ± 0.091 |
| 15 | 0.300 ± 0.064 | 0.302 ± 0.068 | 0.284 ± 0.076 |
| 30 | 0.279 ± 0.078 | 0.284 ± 0.059 | 0.234 ± 0.043 |

Table S3. Descriptive statistics of noninvasive keratograph tear breakup time (Mean and SD displayed for parametric variables). Day 0: unfrozen formulation; Day 30: 30-day frozen formulation; Day 120: 120-day frozen formulation.

| Time (min) | Mean ± sd (mm) Day 0 | Mean ± sd (mm) Day 30 | Mean ± sd (mm) Day 120 |
|------------|-------------------------|--------------------------|---------------------------|
| Baseline | 10.89 ± 3.498 | 11.69 ± 6.228 | 13.14 ± 5.690 |
| 2 | 15.31 ± 6.292 | 15.65 ± 5.083 | 14.36 ± 5.001 |
| 5 | 12.92 ± 4.412 | 14.86 ± 5.686 | 13.62 ± 5.707 |
| 10 | 12.03 ± 6.076 | 12.09 ± 4.734 | 11.88 ± 5.051 |
| 15 | 11.28 ± 4.240 | 11.20 ± 4.728 | 11.97 ± 6.200 |
| 30 | 10.67 ± 4.301 | 11.23 ± 4.526 | 9.977 ± 5.919 |