

Technical Data Sheet: Steroid Test Kit (general corticosteroids)

Product Code: SS-ST-01

Brand: SURE Scientific

Application: High-potency corticosteroid screening for skin-whitening cosmetics.

1. PRODUCT OVERVIEW

The **SURE Scientific Steroid Test Kit** is a high-selectivity, field-optimized screening tool designed for the presumptive qualitative detection of common illegal corticosteroids. The kit targets a broad spectrum of widely abused topical steroids, including **Betamethasone, Hydrocortisone, Dexamethasone, and Prednisolone**. By employing a sequential multi-step reaction chemistry, it provides public health officers, consumers, and suppliers with an immediate field assessment tool to intercept adulterated, hazardous cosmetic products.

2. KEY FEATURES

- **Broad-Spectrum Target Range:** Configured to simultaneously screen for the primary glucocorticoids used in illicit formulations.
- **High Efficiency Capacity:** Accommodate 20 independent sample screenings per kit package.
- **Instantaneous Field Readout:** Delivers a distinctive chromogenic shift within a 1–2 minutes.
- **Independent Matrix Targeting:** Specially tuned for standard creams and lotions. (*Note: For specific Clobetasol Propionate screening, deploy the Clobetasol Specific Kit*).

3. KIT COMPONENTS

Each single kit package provides all necessary materials to execute 20 independent test cycles:

- **Test Reagent 1** (1 Dropper Bottle): Proprietary baseline conditioning solution.
- **Test Reagent 2** (1 Dropper Bottle): Proprietary chromogenic indicator active solution.
- **Test Vessels:** Disposable polystyrene spoons for sample mixing.
- **Standard Color Chart:** High-fidelity visual color reference gradient printed directly on the exterior packaging envelope.
- **Instruction Manual:** Step-by-step user field operation guide.

4. TECHNICAL SPECIFICATIONS

Parameter	Specification
Detection Method	Colorimetric (Visual Color Development)
Target Analogues	Betamethasone, Hydrocortisone, Dexamethasone, Prednisolone, etc.
Limit of Detection (LOD)	~0.02% w/v, 200 mg/kg (ppm)
Testing/Reaction Time	1-2 minutes
Kit Capacity	20 samples per kit package
Sample Matrix	Topical cosmetic creams, and skin-whitening lotions
Operating Temperature	20–35 °C (Ambient)
Storage Temperature	2 –8 °C (Keep refrigerated for optimal reagent shelf-life)
Shelf Life	12 months from manufacture (at 2-8 °C, unopened)

5. INSTRUCTIONS FOR USE

1. **Sampling:** Using a clean testing spoon, place a pea-sized scoop of the cosmetic cream into the center of the spoon bowl.
2. **Sequential Reagent Addition:**
 - Dispense exactly 1 drop of Reagent-1 directly onto the cream sample.
 - Immediately follow by adding exactly 1 drop of Reagent-2 directly onto the same sample.
3. **Homogenization:** Thoroughly mix the reagents into the cosmetic matrix using the tip of a clean sampling tool for 10–20 seconds.
4. **Incubation:** Allow the mixed reaction to stand undisturbed at ambient temperature for 1–2 minutes.
5. **Evaluation:** Read the developed color profile immediately against the standard color chart printed on the envelope packaging.

6. RESULT INTERPRETATION

Read all outcomes under a bright, natural, or stable white LED light source:

- **NEGATIVE:** The mixture shows no significant color change, or develops a Pale Pink background hue. This indicates that general corticosteroids are either entirely absent or reside safely below the detection limit of the screening chemistry.
- **POSITIVE:** The colorless sample mixture shifts distinctly into a Blue or Gray-Blue color inside the incubation window. This color shift visually demonstrates a presumptive positive state for steroid adulteration.

Critical Operational Notes

- **Validated Anti-Interference:** Formulations containing massive structural concentrations of pure Vitamin C (L-Ascorbic Acid) or extreme levels of botanical antioxidants may trigger false-positive visual changes.
- **Chemical Filter Constraints:** Extreme concentrations of certain synthetic chemical UV filters present in specialized sunscreens may theoretically trigger a false-positive pink color.

7. STORAGE AND STABILITY

- **Transport Status:** Stable at ambient temperatures during standard shipping transit windows.
- **Long-Term Storage:** Keep refrigerated at 2–8°C immediately upon arrival. Do not freeze.
- Keep away from direct sunlight and extreme heat to prevent reagent degradation.
- Ensure the caps of Reagent bottles are tightly sealed immediately after use to prevent evaporation and air oxidation.

8. SAFETY AND HANDLING

- **First Aid:** In case of skin or eye contact, rinse immediately with plenty of water. If irritation persists, seek medical advice.
- **Disposal:** Dispose of used test spoons and chemical waste in accordance with local environmental regulations.

9. LIMITATIONS AND LEGAL DISCLAIMER

- **Presumptive Screening Only:** This kit serves exclusively as a qualitative screening tool for preliminary on-site detection. It is NOT a confirmatory analytical device, a quantitative validation tool, or legally binding evidence of contamination.
- **Confirmatory Requirements:** Do not execute legal penalties, destroy commercial inventory, or publicly accuse suppliers based solely on these screening outcomes. A positive screening result must be validated by an accredited testing facility using gold-standard quantitative instrumentation such as High-Performance Liquid Chromatography (HPLC) or GC-MS.
- **Liability Limitation:** SURE Scientific's commercial liability is strictly restricted to product replacement or a direct refund of the kit packaging purchase price. The manufacturer explicitly disclaims all civil or financial liability for commercial revenue drops, subsequent health outcomes, or legal outcomes resulting from field testing actions.

MANUFACTURER INFORMATION

SURE Scientific Co., Ltd.

Contact/Support: www.facebook.com/mercurytestkit